7618

TC-V77FR

SERVICE MANUAL

AEP Model
Canadian Model
E Model

SONY
AUTO REVERSE
OPEN/CLOSE
COUNTER
RESET
MEMORY
DIRECTION MODE
PRE-END REVERSE
BLANK SKIP
MUSIC SCAN
AMS
0.00
PEAK LEVEL METER
DOLBY NR
REC MUTE
TIMER
STEREO CASSETTE DECK TC-V77FR
AUTO PLAY
REC LEVEL

SPECIFICATIONS

Recording system
4-track 2-channel stereo

Fast-forward and rewind time
Approx. 120 sec. (with C-60 cassette)

Bias frequency 105 kHz

Signal-to-noise ratio (NAB, at peak level)

Cassette \ Dolby NR switch	OFF	B-TYPE ON	C-TYPE ON
TYPE IV (Sony METALLIC)	58 dB	65 dB	71 dB
TYPE II (Sony UCX)	57 dB	64 dB	70 dB
TYPE I (Sony HF-S)	54 dB	61 dB	67 dB

Total harmonic distortion
1.0% (with Sony METALLIC cassette)

Frequency response
DOLBY NR OFF
- With TYPE IV cassette (Sony METALLIC)
  20 – 16,000 Hz
  30 – 15,000 Hz (±3 dB)
  30 – 13,000 Hz (±3 dB, 0 VU recording)
  30 – 15,000 Hz (DIN)
- With TYPE II cassette (Sony UCX)
  20 – 16,000 Hz
  30 – 15,000 Hz (±3 dB)
  30 – 15,000 Hz (DIN)
- With TYPE I cassette (Sony HF-S)
  20 – 15,000 Hz
  30 – 14,000 Hz (DIN)

Wow and flutter 0.06% WRMS (NAB)
±0.2% (DIN)

Inputs Line inputs (phono jacks)
Sensitivity 77.5 mV (−20 dB)
Input impedance 50 k ohms

Outputs Line outputs (phono jacks)
Rated output level 0.44 V (−5 dB) at load impedance 50 k ohms
Load impedance over 10 k ohms

General

Power requirements
AEP model: 220 V ac, 50/60 Hz
Canadian model: 120 V ac, 60 Hz
E model: 120, 220 or 240 V ac adjustable, 50/60 Hz

Power consumption
AEP, E model: 20 watts
Canadian model: 19 watts

Dimensions Approx. 355 × 80 × 245 mm (w/h/d)
(14 × $3\frac{5}{32}$ × $9\frac{21}{32}$ inches)
including projecting parts and controls

Weight Approx. 4.6 kg (10 lbs 3 oz)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MICROFILM

STEREO CASSETTE DECK

SONY®

TC

FEATURES

- Auto-reverse recording and playback with roto-bilateral record/playback head.
- Blank spaces at least 10 seconds long can be skipped with the blank skip function.
- With the music scan function, the beginning of each selection is played back in sequence.
- With the ⟲/⇄ DIRECTION MODE key engaged, both sides of the cassette can be played back five times in succession.
- Direct function* and remote control operation with the optional Sony ST-V77/V77L system control tuner.
- Synchronized operation with the optional Sony PS-FL770 or PS-LX550 turntable system.
- The C-type Dolby NR system reduces tape noise twice as effectively as the conventional B-type system.
- The AMS (Automatic Music Sensor) allows you to locate the desired selection easily.
- The automatic tape select system adjusts the cassette deck to achieve the optimum recording and playback characteristics for each tape type.
- The digital linear counter indicates the elapsed or remaining recording or playback time in minutes and seconds. The pre-end winker warns that the tape is about to run out during recording.
- The deck can be turned on and off using an optional timer.

*With the direct function, pressing any function key automatically changes the program in use. For example, if you want to switch to a taped program when you are listening to an FM broadcast, all you have to do is to press the ◁ or ▷ key. The function automatically changes to TAPE and tape playback starts.

PRE-END REVERSE FUNCTION

When the PRE-END REVERSE key is pressed (PER indicator illuminates), the deck detects a pause of 1.8 seconds or more in the program source during recording, or a blank space of 1.5 seconds or more on a recorded tape during playback when the tape approaches the end. The detection begins 2 to 3 minutes before the end of the tape for a C-60 cassette. The head reverses position automatically when such a pause or blank is detected, and recording or playback on the other side of the cassette begins.

If no pause is detected during recording up to the point where the remaining recording time is about one minute, the deck automatically makes a 1.8-second blank space in record muting mode, then reverses the head.

This function operates only in the direction from the upper side to the lower side.

To cancel the pre-end reverse function

Press to release the PRE-END REVERSE key so that the PER indicator goes off.

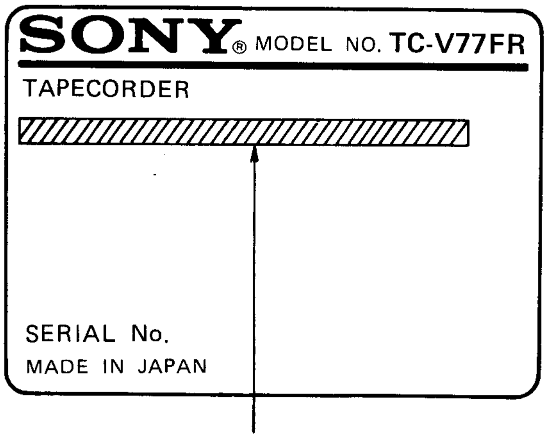
The head reverses the position at the very end of the tape.

Notes

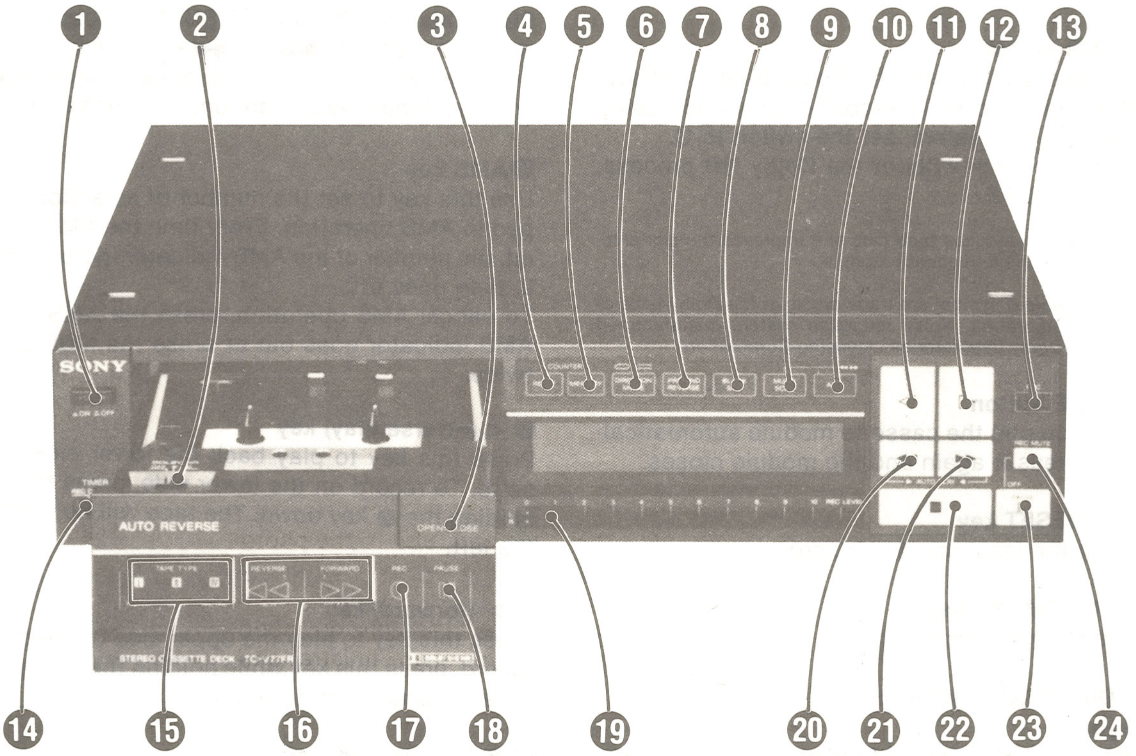
- When the PRE-END REVERSE key is pressed, the available recording time on both sides of a cassette is 54 to 58 minutes for a C-60 cassette, and 80 to 86 minutes for a C-90 cassette.
- The pre-end reverse function does not operate when using a cassette whose hubs are very thick.
- The pre-end reverse function may malfunction with a selection fading in or fading out.
- Play back the cassettes recorded on another tape deck without the pre-end reverse function. Otherwise, the last selection on the side of the cassette may not be played back.

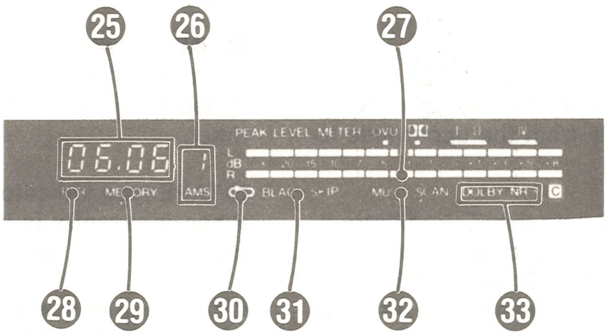
MODEL IDENTIFICATION

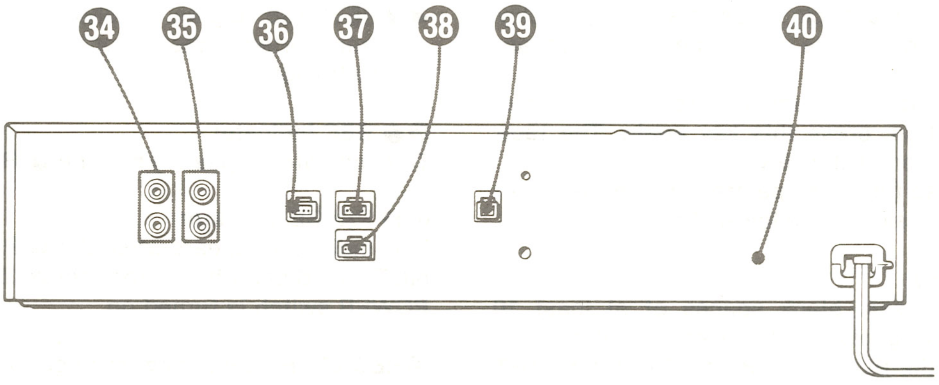
– Specification Label –



Canadian model: AC 120 V 60 Hz 19 W
AEP, G-AEP model: 220 V ~ 50/60 Hz 20 W
E model: 120, 220, 240 V ~ 50/60 Hz 20 W


1
2
3
4
5
6
7
8
9
10
11
12
13
SONY
COUNTER
REC MUTE
TIMER
AUTO REVERSE
OPEN/CLOSE
TAPE TYPE
REVERSE
FORWARD
REC
PAUSE
REC LEVEL
STEREO CASSETTE DECK TC-V77FR
14
15
16
17
18
19
20
21
22
23
24


25
26
27
06.06
PEAK LEVEL METER
MEMORY
AMS
BLANK SKIP
MUSIC SCAN
DOLBY NR
28
29
30
31
32
33


34
35
36
37
38
39
40

FUNCTION OF CONTROLS

❶ POWER switch

❷ DOLBY* NR switch

To record or playback using the Dolby B-type NR system, set this switch to B. To record or play back using the Dolby C-type NR system, set the switch to C.
To record or play back without the Dolby NR process, set the switch to OFF.

*The Dolby NR system reduces tape hiss and improves the signal-to-noise ratio at low-level high-frequency signals.

"Dolby" and the double-D symbol are trade marks of the Dolby Laboratories Licensing Corporation. Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

❸ OPEN/CLOSE button

Press this button and the cassette module automatically slides out. Press it again and the module closes.

❹ COUNTER RESET key

Press to reset the tape counter to zero.

❺ COUNTER MEMORY key

Used for the memory stop/play.

❻ ⊂⊃ / ⇄ DIRECTION MODE key

During playback

Press to play back both sides of the cassette five times. When playback is started from the lower side, the tape will stop at the end of the 5th playback of the lower side so the upper side will have been played back only four times.
Press again to disengage.

During recording

Press to record on both sides of the cassette. Auto-reverse recording operates only from the upper side to the lower side.

When the power switch is turned on the ⊂⊃ indicator illuminates and auto-reverse recording/playback is engaged. To disengage, press the ⊂⊃ / ⇄ DIRECTION MODE key again. When the key is disengaged, ⇄ one-direction playback/recording is possible.

❼ PRE-END REVERSE key

During recording or playback, press this key to quickly reverse the direction of the tape when the tape approaches the end.
The PER and ⊂⊃ indicator illuminate. To cancel the pre-end reverse function, press this key again. The tape reverses the direction at the very end.
The pre-end reverse function operates only in the direction from the upper side to the lower side.

❽ BLANK SKIP key

Press this key to skip blank spaces of at least 10 seconds long during playback. To cancel blank skip operation, press the BLANK SKIP key until the BLANK SKIP indicator goes out.

❾ MUSIC SCAN key

Press this key (The MUSIC SCAN indicator illuminates) and then press the ▶▶ or ◀◀ key. The beginnings of all the selections will be played back in sequence.
To cancel the music scan function, press this key again.

❿ AMS key

Use this key to set the number of selections to be skipped in AMS operation. Every time the AMS key is pressed, the number of the AMS indicator increases by 1 up to 9, then goes off.
To cancel AMS operation, press the AMS key until the AMS indicator goes out or press the MUSIC SCAN key twice.

⓫ ◁ (reverse play) key

Press this key to play back the lower side of the cassette. To record on the lower side, press this key while holding the ● key down. The tape will be transported to the left.

⓬ ▷ (forward) key

Press this key to play the upper side of the cassette. To record, press this key while holding the ● key down. The tape is transported to the right.

⓭ ● REC (record) key

Press this key together with the ▷ or ◁ key to start recording. When this key is pressed for recording level adjustment, the deck will detect the tab of the cassette.

⓮ TIMER switch

You can set the unit to record or play back at a predetermined time by connecting any commercially available timer.

⓯ TAPE type indicator

When a cassette is inserted, the appropriate tape type indicator lights up.

⓰ Direction indicators

- ▶▶ FORWARD: Lights to show that the cassette is transported to the right or is ready to be transported to the right.
- ◀◀ REVERSE: Lights to show that the cassette is transported to the left or is ready to be transported to the left.

⓱ ● REC indicator

This indicator appears when the ● REC key is pressed.

⓲ ❚❚ PAUSE indicator

This indicator appears when the ❚❚ PAUSE key is pressed. This indicator blinks for approx. 2 seconds when the POWER switch is turned on.

⓳ REC LEVEL (recording level) controls

These controls adjust the recording level.

⑳ ◀◀ (fast-reverse) key
Press this key to advance the tape rapidly to the left. It is also used for the auto play, AMS and music scan functions.

㉑ ▶▶ (fast-forward) key
Press this key to advance the tape rapidly to the right. It is also used for the auto play, AMS and music scan functions.

㉒ ■ (stop) key
Press this key to stop the tape, or to disengage the ● key.

㉓ ❚❚ PAUSE key
Press this key to stop the tape running for a moment during recording or playback.

㉔ ○ REC MUTE (record muting) key
Press this key to eliminate unwanted material and to insert a blank space during recording.

Display section

㉕ Digital linear counter
Indicates the tape running time.

㉖ AMS indicator
This indicator appears when the AMS key is pressed. The figure shows how many selections will be skipped with the AMS system.

㉗ Peak level meters
These meters show the peak input level of each channel during recording, and recorded levels in the playback mode.

㉘ PER indicator
This indicator appears when the PRE-END REVERSE key is pressed and pre-end reverse function is engaged.

㉙ MEMORY indicator
When the MEMORY key is pressed, this indicator shows that the memory counter function is engaged.

㉚ ↻ indicator
This indicator appears when the ↻/⇄ DIRECTION MODE key or the PRE-END-REVERSE key is pressed and cycle play function is engaged.

㉛ BLANK SKIP indicator
This indicator appears when the BLANK SKIP key is pressed and blank skip operation is engaged.

㉜ MUSIC SCAN indicator
This indicator appears when the MUSIC SCAN key is pressed and music scan function is engaged.

㉝ Dolby NR indicator
The selected Dolby NR B or C type is indicated here.

Rear panel

㉞ LINE OUT (line outputs) jacks (phono jack)
Accepts tape inputs from an amplifier for playing back a tape and line inputs from another tape deck for dubbing a tape onto that unit.

㉟ LINE IN (line inputs) jacks (phono jack)
Accepts tape outputs from an amplifier for tape recording and line outputs from another tape deck when dubbing a tape from that unit.

㊱ SYNCHRO remote control connector (3-pin)
Connect the remote control cord supplied with the Sony PS-FL770 or PS-LX550 turntable system to synchronize the operation of the TC-V77FR with the turntable system.

㊲ 🅁 remote input connector (4-pin)
Use this connector for remote control operation of the total audio system. For details, refer to the Operating Instructions of the optional Sony ST-V77/V77L system control tuner.

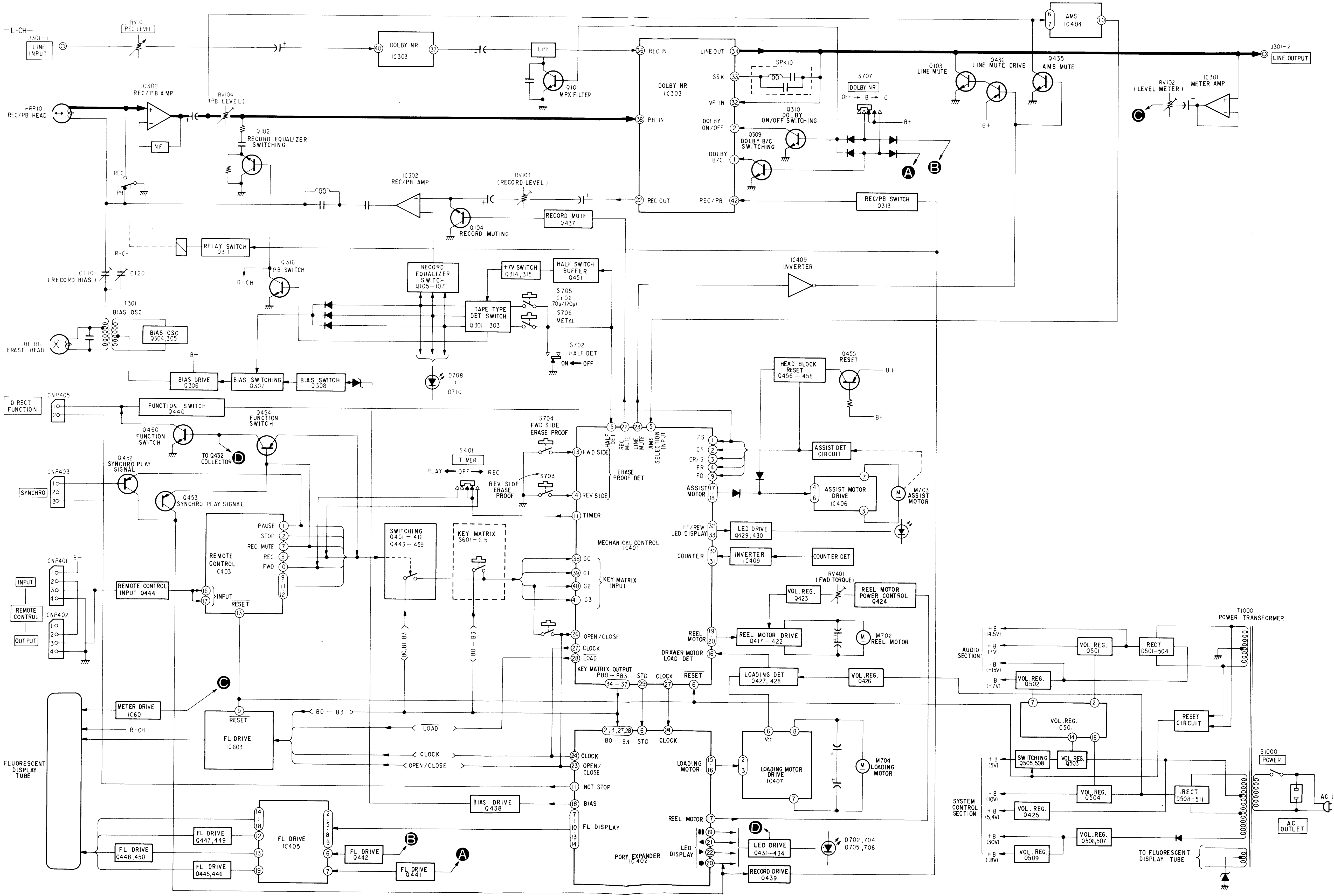
㊳ 🅁 remote output connector (4-pin)
Use this connector for remote control operation of the total audio system. For details, refer to the Operating Instructions of the optional Sony ST-V77/V77L system control tuner.

㊴ Function control connector
For connecting to the TAPE RECORDER direct function connector of the optional Sony ST-V77/V77L system control tuner for direct function.

㊵ UNSWITCHED AC outlet
Accepts an audio component whose power consumption is less than 100 watts. This outlet is not controlled by the POWER switch of the amplifier.

MEMO

SECTION 1
BLOCK DIAGRAM



—L-CH—
J301-1 LINE INPUT
RV101 REC LEVEL
DOLBY NR IC303
LPF
Q101 MPX FILTER
REC IN
LINE OUT
SSK
SPK101
VF IN
PB IN
DOLBY ON/OFF
DOLBY B/C
REC OUT
REC/PB
DOLBY NR IC303
Q310 DOLBY ON/OFF SWITCHING
Q309 DOLBY B/C SWITCHING
S707 DOLBY NR
OFF → B → C
AMS IC404
Q103 LINE MUTE
Q436 LINE MUTE DRIVE
Q435 AMS MUTE
J301-2 LINE OUTPUT
RV102 (LEVEL METER)
IC301 METER AMP
HRP101 REC/PB HEAD
IC302 REC/PB AMP
NF
RV104 (PB LEVEL)
Q102 RECORD EQUALIZER SWITCHING
REC
PB
IC302 REC/PB AMP
RV103 (RECORD LEVEL)
Q104 RECORD MUTING
RECORD MUTE Q437
REC/PB SWITCH Q313
RELAY SWITCH Q311
R-CH
CT101 (RECORD BIAS)
CT201
T301 BIAS OSC
HE101 ERASE HEAD
BIAS OSC Q304,305
Q316 PB SWITCH
R-CH
RECORD EQUALIZER SWITCH Q105-107
+7V SWITCH Q314,315
HALF SWITCH BUFFER Q451
TAPE TYPE DET SWITCH Q301-303
S705 CrO2 (70μ/120μ)
S706 METAL
S702 HALF DET
ON ← OFF
IC409 INVERTER
D708 ~ D710
B+
BIAS DRIVE Q306
BIAS SWITCHING Q307
BIAS SWITCH Q308
HEAD BLOCK RESET Q456-458
Q455 RESET
B+
CNP405
DIRECT FUNCTION
FUNCTION SWITCH Q440
Q454 FUNCTION SWITCH
Q460 FUNCTION SWITCH
TO Q432 COLLECTOR
S704 FWD SIDE ERASE PROOF
S401 TIMER
PLAY ← OFF → REC
S703
REV SIDE ERASE PROOF
HALF DET
REC MUTE
LINE MUTE
AMS SELECTION INPUT
FWD SIDE
REV SIDE
ERASE PROOF DET
TIMER
PS
CS
CR/S
FR
FD
ASSIST MOTOR
ASSIST DET CIRCUIT
ASSIST MOTOR DRIVE IC406
M703 ASSIST MOTOR
CNP403
SYNCHRO
Q452 SYNCHRO PLAY SIGNAL
Q453 SYNCHRO PLAY SIGNAL
PAUSE
STOP
REC MUTE
REC
FWD
REMOTE CONTROL IC403
SWITCHING Q401-416 Q443-459
KEY MATRIX S601-615
MECHANICAL CONTROL IC401
FF/REW LED DISPLAY
LED DRIVE Q429,430
COUNTER
INVERTER IC409
COUNTER DET
G0
G1
G2
G3
KEY MATRIX INPUT
RV401 (FWD TORQUE)
VOL.REG. Q423
REEL MOTOR POWER CONTROL Q424
CNP401
B+
INPUT
REMOTE CONTROL
OUTPUT
CNP402
REMOTE CONTROL INPUT Q444
INPUT
RESET
(B0,B1,B3)
B0-B3
OPEN/CLOSE
CLOCK
LOAD
KEY MATRIX OUTPUT PB0-PB3
STD
CLOCK
RESET
REEL MOTOR
REEL MOTOR DRIVE Q417-422
M702 REEL MOTOR
DRAWER MOTOR LOAD DET
LOADING DET Q427,428
VOL.REG. Q426
FLUORESCENT DISPLAY TUBE
METER DRIVE IC601
R-CH
RESET
FL DRIVE IC603
B0-B3
LOAD
CLOCK
OPEN/CLOSE
B0-B3
STD
CLOCK
LOADING MOTOR
LOADING MOTOR DRIVE IC407
Vcc
M704 LOADING MOTOR
NOT STOP
BIAS
BIAS DRIVE Q438
FL DISPLAY
REEL MOTOR
LED DISPLAY
PORT EXPANDER IC402
LED DRIVE Q431~434
D702,704 D705,706
RECORD DRIVE Q439
FL DRIVE Q447,449
FL DRIVE Q448,450
FL DRIVE Q445,446
FL DRIVE IC405
FL DRIVE Q442
FL DRIVE Q441
A
B
C
D
T1000 POWER TRANSFORMER
AUDIO SECTION
+B (14.5V)
+B (7V)
-B (-15V)
-B (-7V)
VOL.REG. Q501
RECT D501-504
VOL.REG. Q502
VOL.REG. IC501
RESET CIRCUIT
SYSTEM CONTROL SECTION
+B (5V)
+B (10V)
+B (5.4V)
+B (30V)
+B (18V)
SWITCHING Q505,508
VOL.REG. Q503
VOL.REG. Q504
VOL.REG. Q425
VOL.REG. Q506,507
VOL.REG. Q509
RECT D508-511
S1000 POWER
AC IN
AC OUTLET
TO FLUORESCENT DISPLAY TUBE

R-CH IS OMITTED : SAME AS L-CH

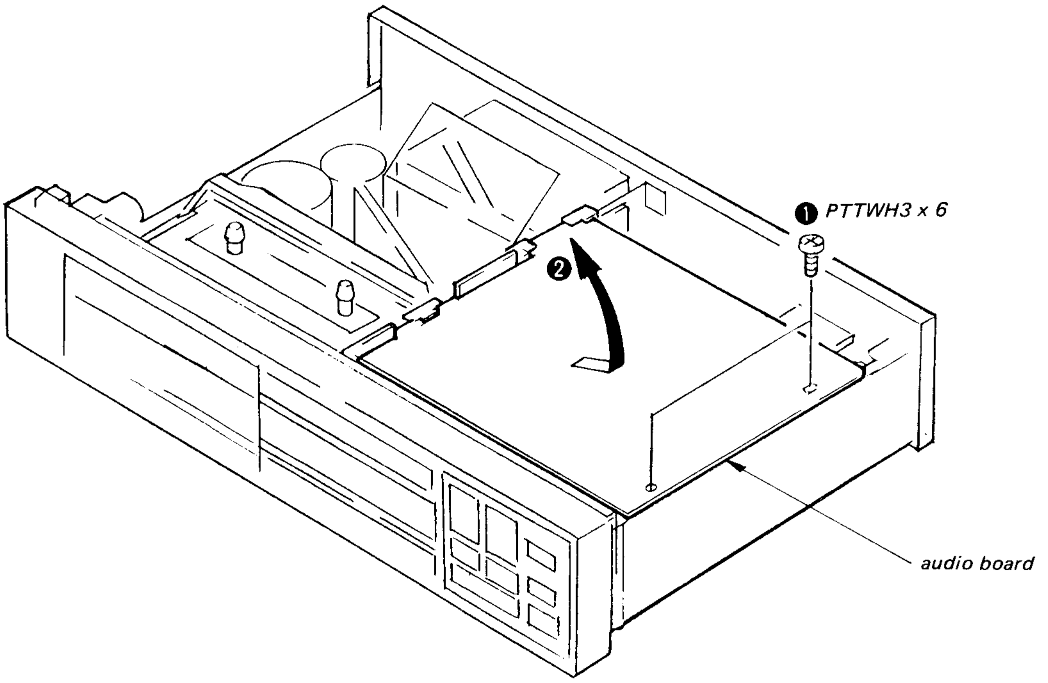
SECTION 2

DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

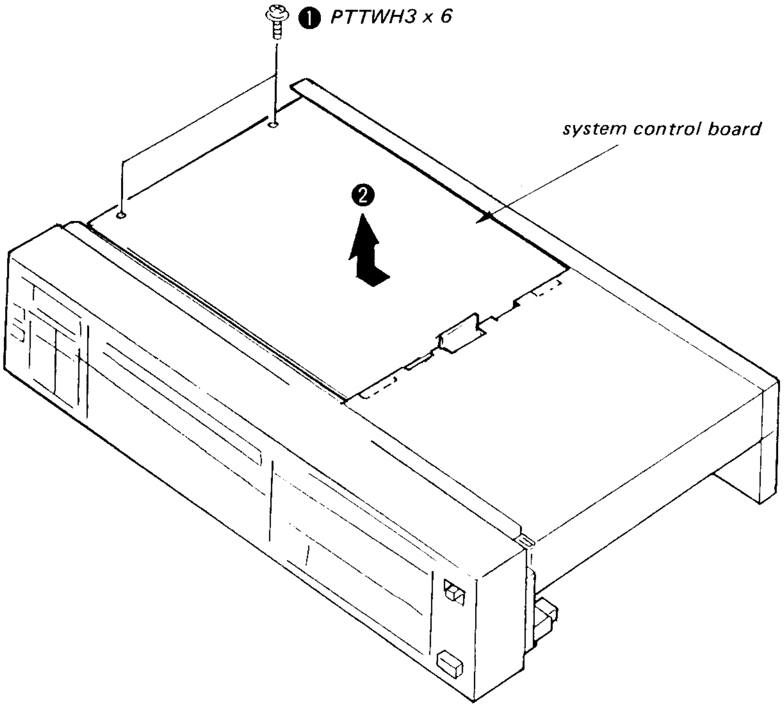
- Remove the case.
  (4 case retaining screws with claw.)

AUDIO BOARD

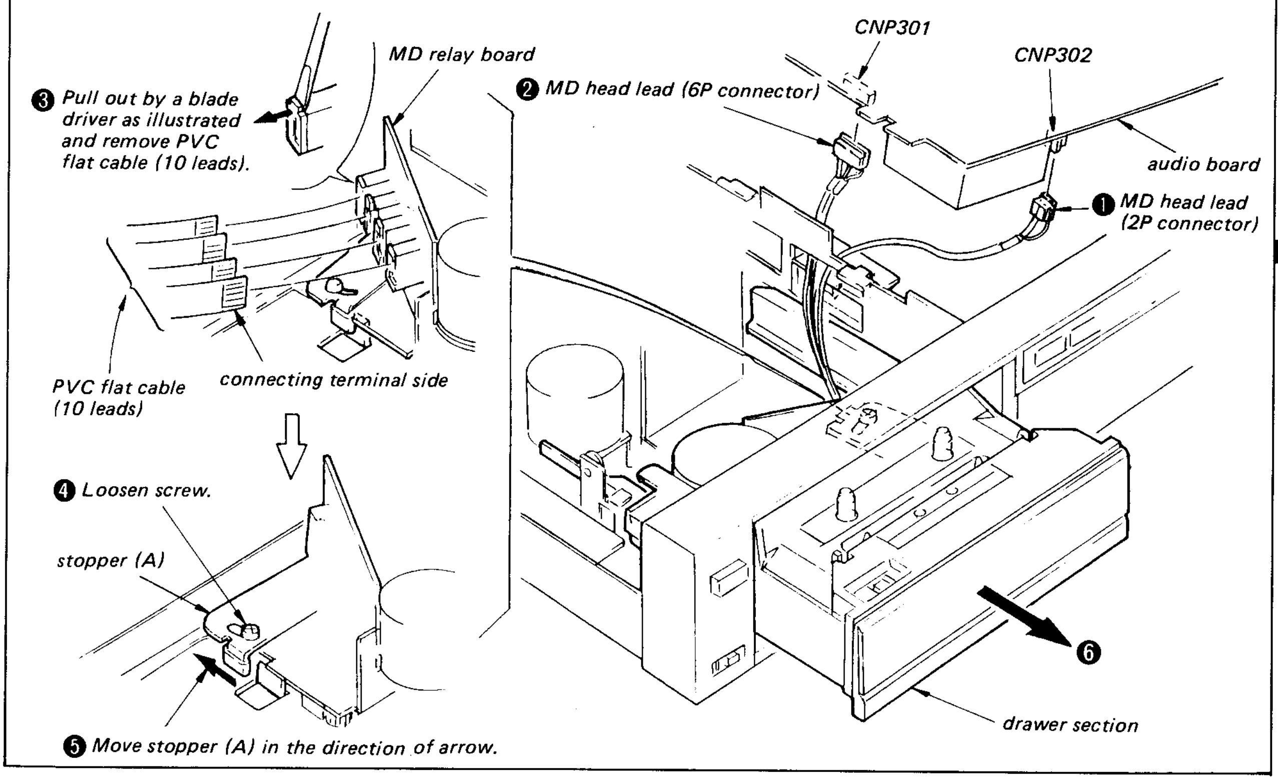

❶ PTTWH3 x 6
❷
audio board

- Remove the bottom plate.
  (+BVTT3 x 6 6 screws.)

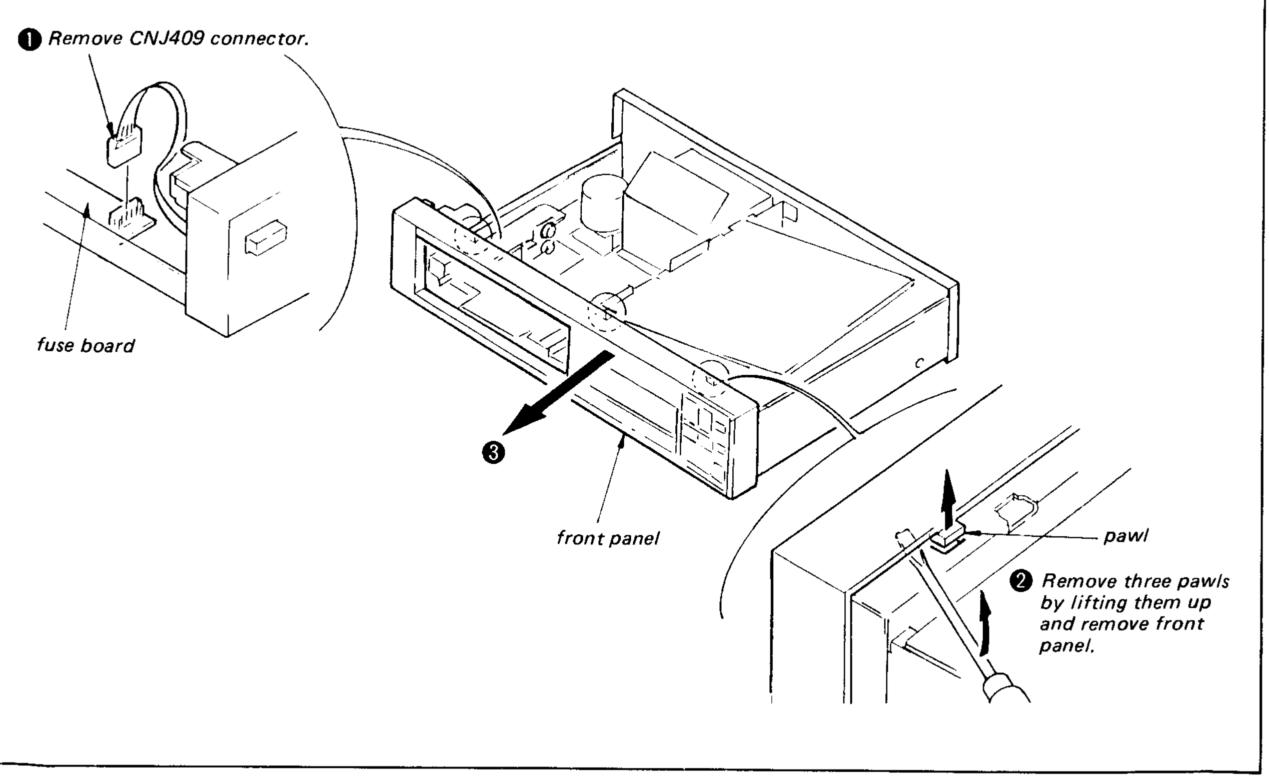
SYSTEM CONTROL BOARD


❶ PTTWH3 x 6
system control board
❷

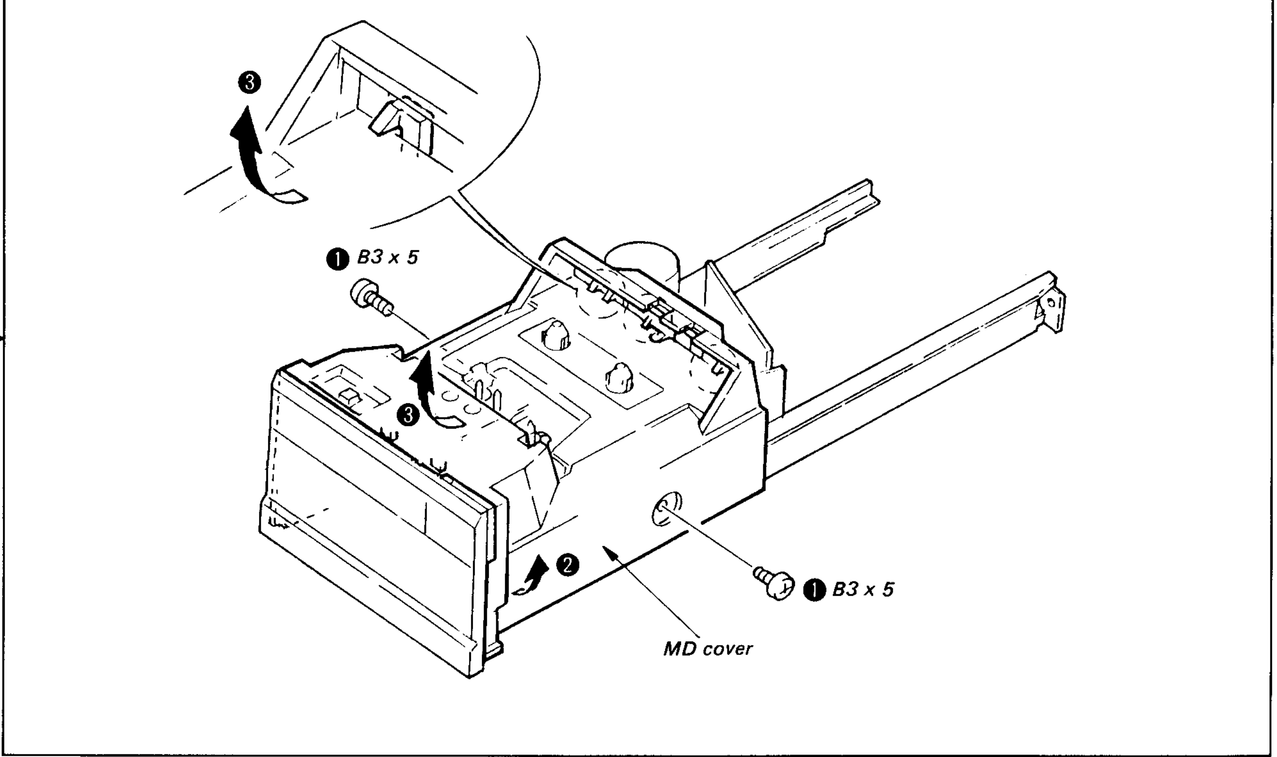
DRAWER SECTION


❸ Pull out by a blade driver as illustrated and remove PVC flat cable (10 leads).
MD relay board
❷ MD head lead (6P connector)
CNP301
CNP302
audio board
❶ MD head lead (2P connector)
PVC flat cable (10 leads)
connecting terminal side
❹ Loosen screw.
stopper (A)
❺ Move stopper (A) in the direction of arrow.
❻
drawer section

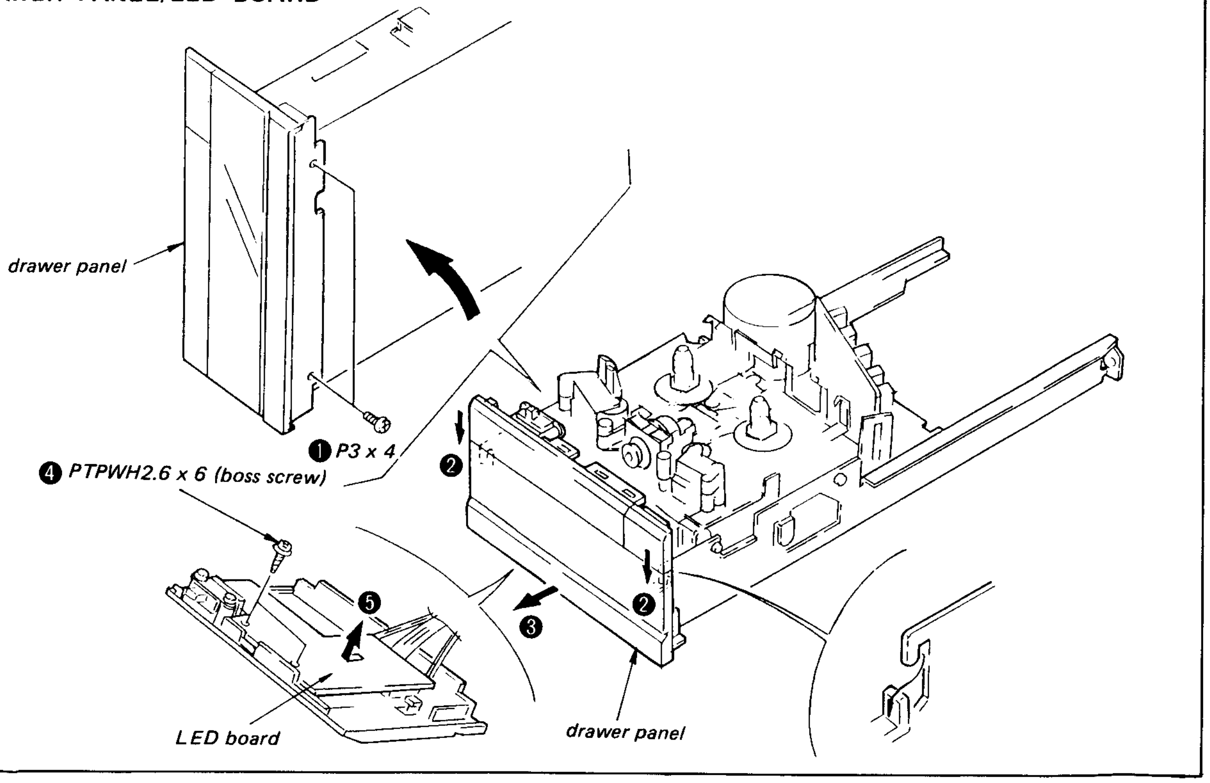
FRONT PANEL


❶ Remove CNJ409 connector.
fuse board
❸
front panel
pawl
❷ Remove three pawls by lifting them up and remove front panel.

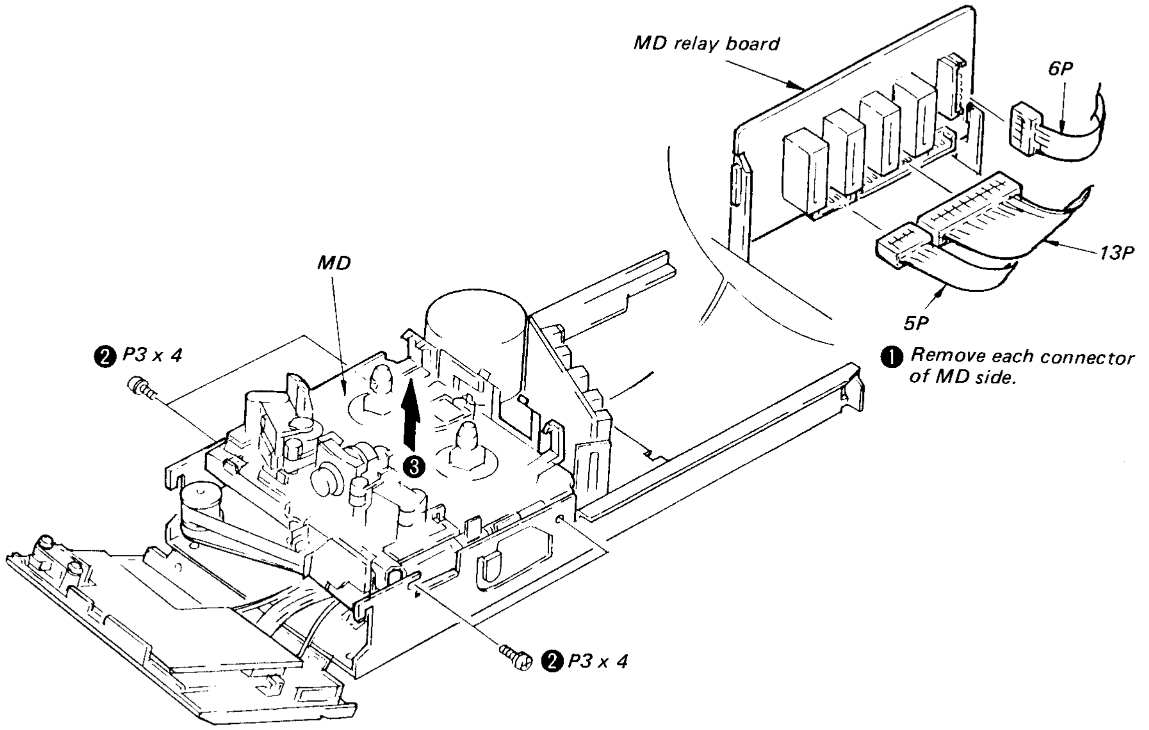
MD COVER


❸
❶ B3 x 5
❸
❷
❶ B3 x 5
MD cover

DRAWER PANEL/LED BOARD

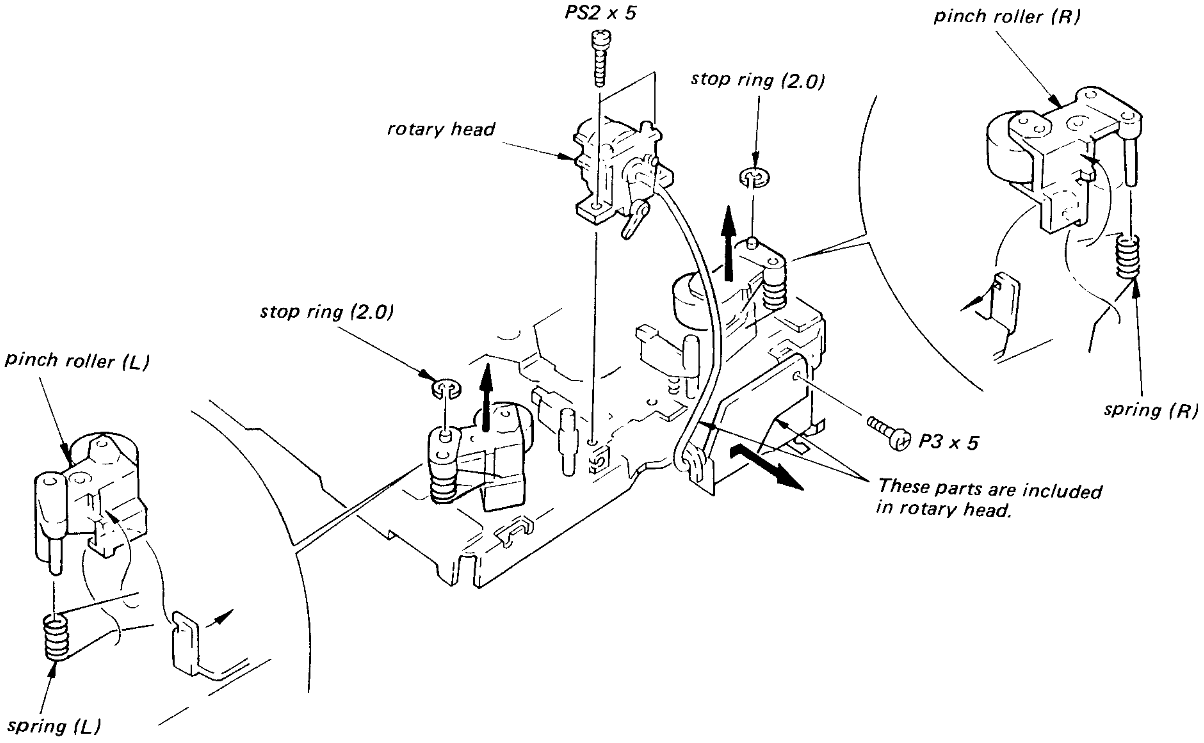

drawer panel
❶ P3 x 4
❹ PTPWH2.6 x 6 (boss screw)
❷
❷
❺
❸
LED board
drawer panel

MD


MD relay board
6P
13P
5P
MD
❷ P3 x 4
❸
❷ P3 x 4

❶ Remove each connector of MD side.

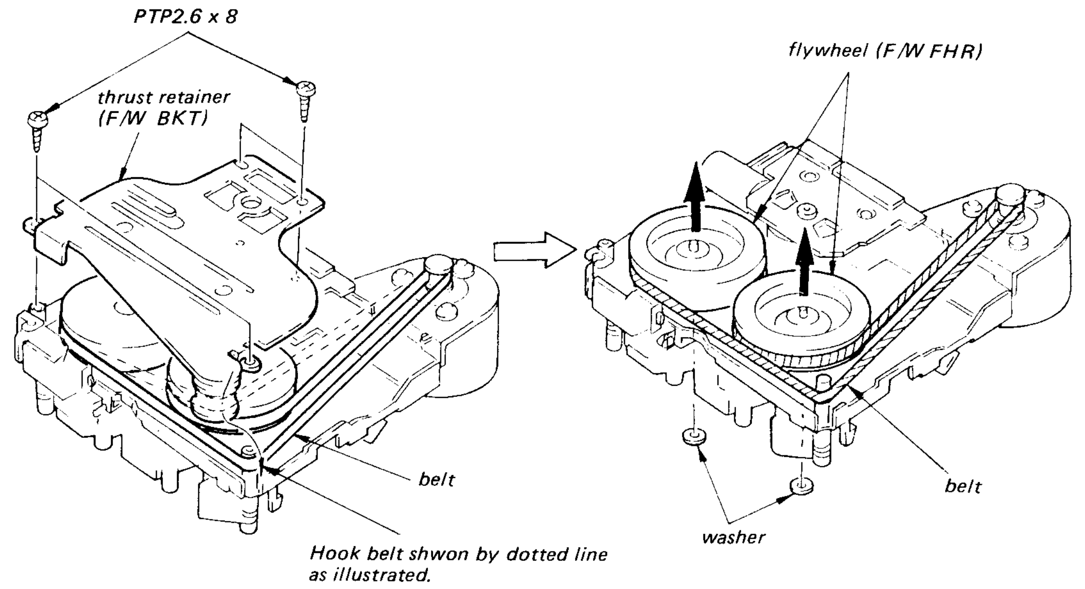
ROTARY HEAD/PINCH ROLLER


PS2 x 5
pinch roller (R)
stop ring (2.0)
rotary head
stop ring (2.0)
pinch roller (L)
spring (R)
P3 x 5
spring (L)

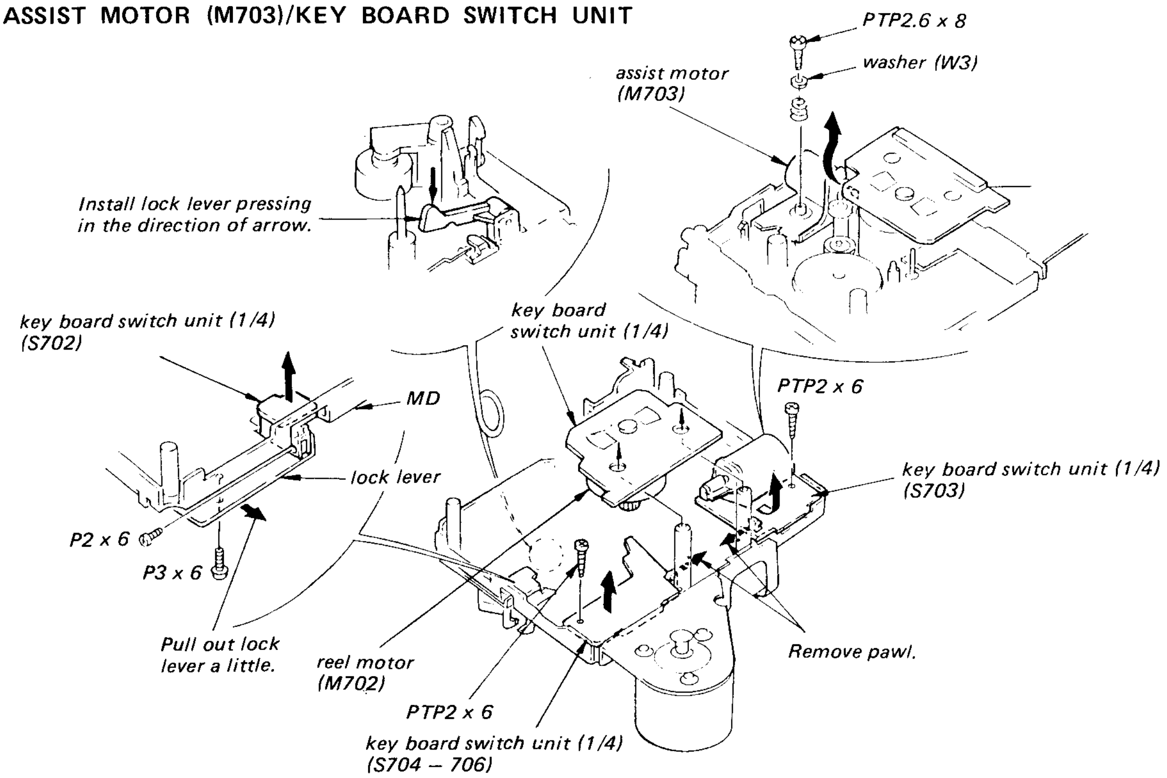
These parts are included in rotary head.

THRUST RETAINER (F/W BKT)

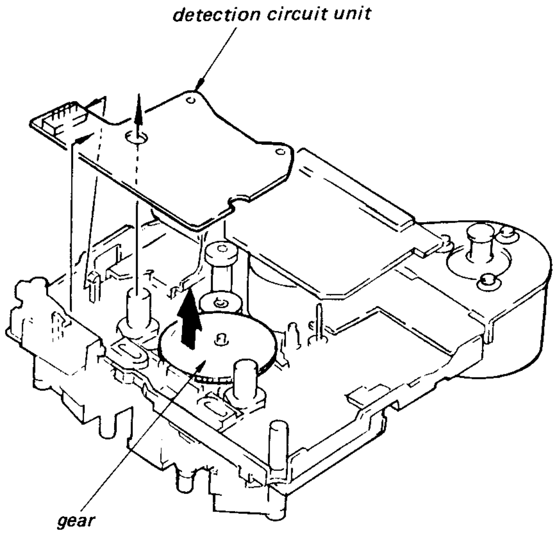
FLYWHEEL (F/W FHR)/BELT


PTP2.6 x 8
thrust retainer
(F/W BKT)
belt
Hook belt shwon by dotted line
as illustrated.
flywheel (F/W FHR)
washer
belt

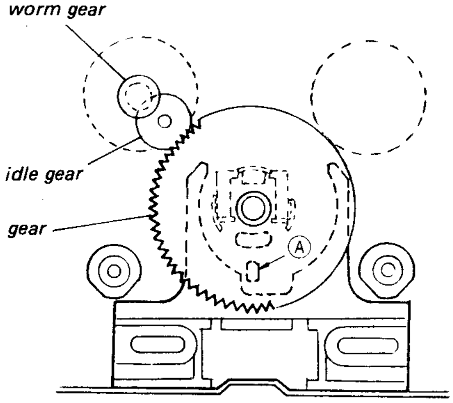
ASSIST MOTOR (M703)/KEY BOARD SWITCH UNIT


PTP2.6 x 8
washer (W3)
assist motor
(M703)
Install lock lever pressing
in the direction of arrow.
key board switch unit (1/4)
(S702)
key board
switch unit (1/4)
MD
lock lever
P2 x 6
P3 x 6
Pull out lock
lever a little.
PTP2 x 6
key board switch unit (1/4)
(S703)
Remove pawl.
reel motor
(M702)
PTP2 x 6
key board switch unit (1/4)
(S704 – 706)

DETECTION CIRCUIT UNIT/GEAR

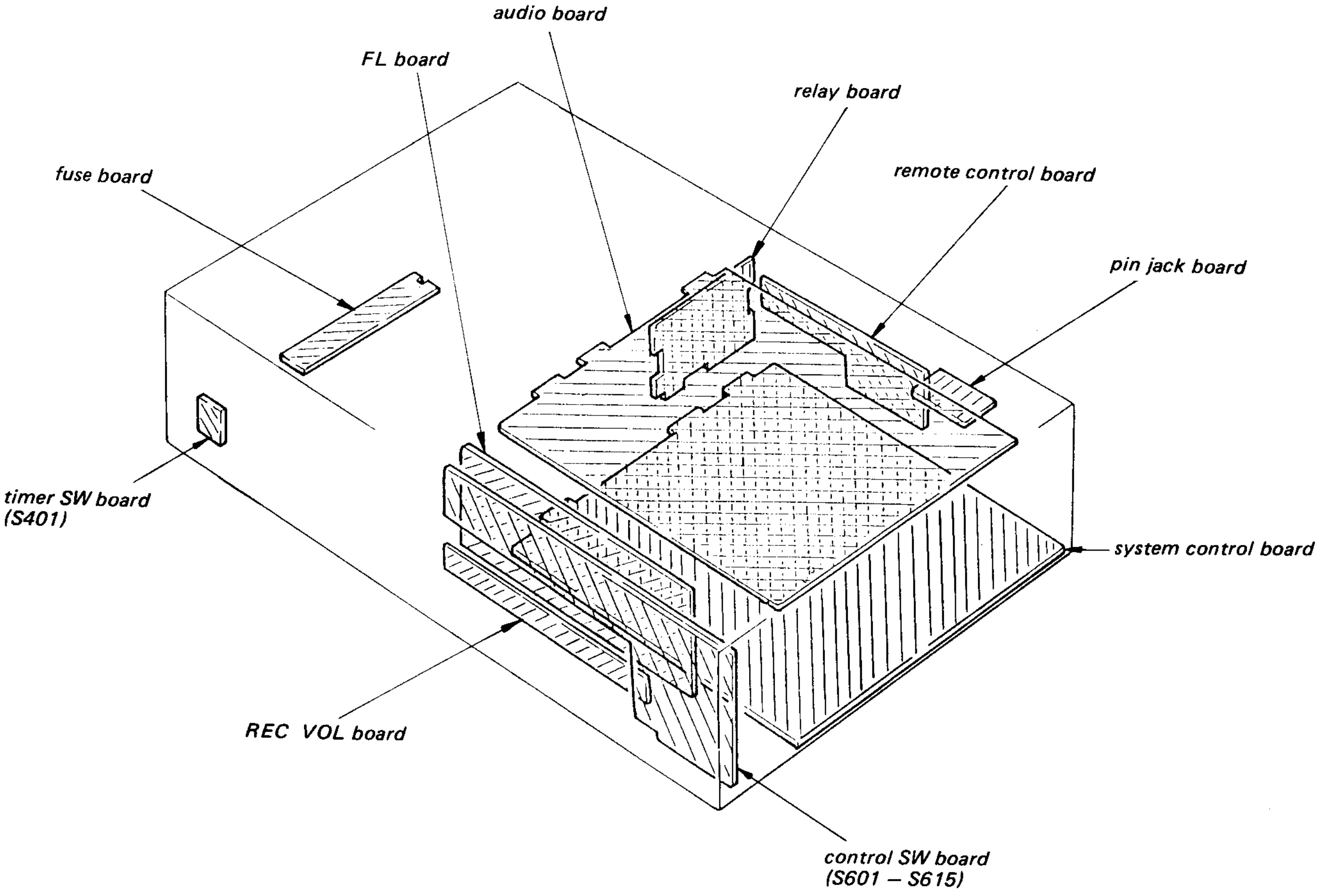

detection circuit unit
gear

gear installing position

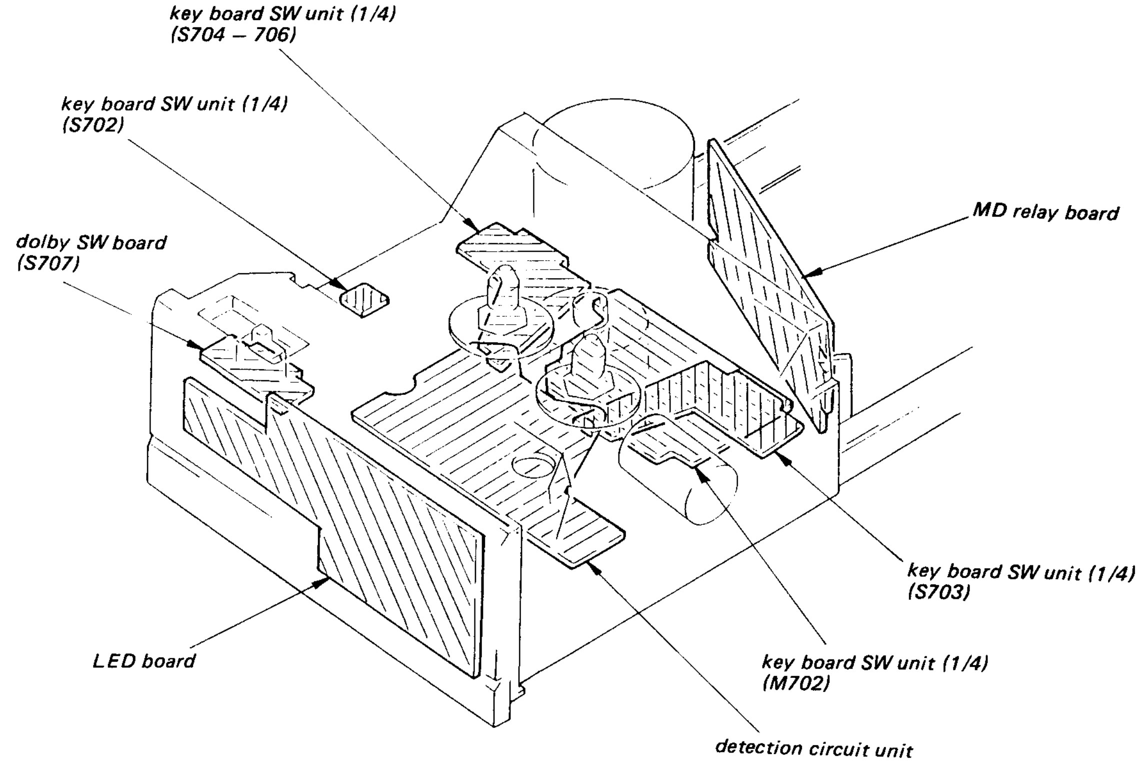

worm gear
idle gear
gear
Ⓐ

Position boss Ⓐ of gear as illustrated.

PC BOARDS LAYOUTS


audio board
FL board
relay board
fuse board
remote control board
pin jack board
timer SW board
(S401)
system control board
REC VOL board
control SW board
(S601 – S615)

MECHANICAL SECTION


key board SW unit (1/4)
(S704 – 706)
key board SW unit (1/4)
(S702)
MD relay board
dolby SW board
(S707)
key board SW unit (1/4)
(S703)
LED board
key board SW unit (1/4)
(M702)
detection circuit unit

SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

PRECAUTION

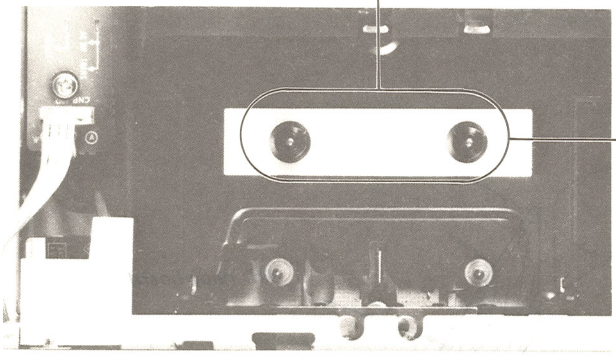
1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD Back tension	CQ-102C	2 – 6 g·cm (0.03 – 0.08 oz·inch)
REV	CQ-102RB	30 – 60 g·cm (0.42 – 0.83 Oz·inch)
REV Back tension	CQ-102RB	2 – 6 g·cm (0.03 – 0.08 oz·inch)
FF, REW	CQ-201B	100 – 170 g·cm (1.39 – 2.36 oz·inch)

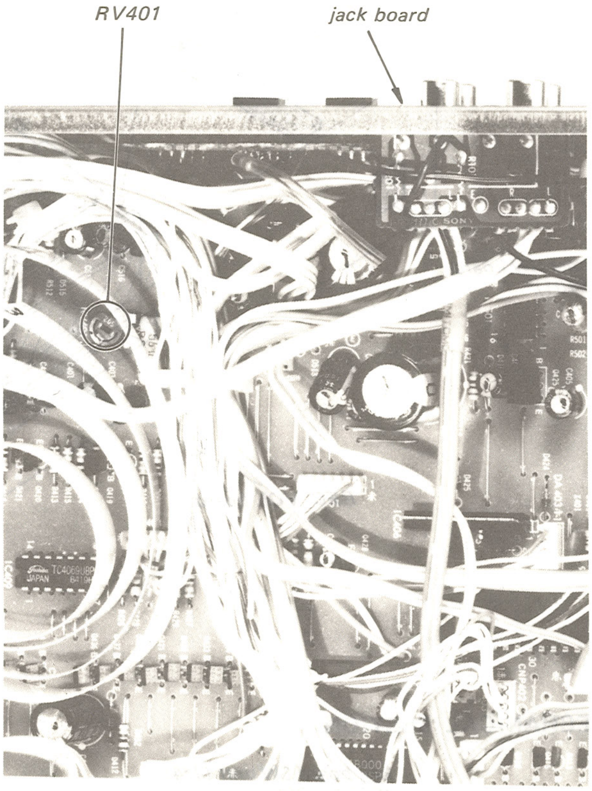


Note: Measure forward, rewind torque after repeating forward-stop-rewind operation twice.

Forward Torque Adjustment

1. Insert torque meter (CQ-102C) and place unit in forward mode.
2. Adjust RV401 so that the reading on torque meter is 30 – 60 g·cm (0.42 – 0.83 oz·inch).

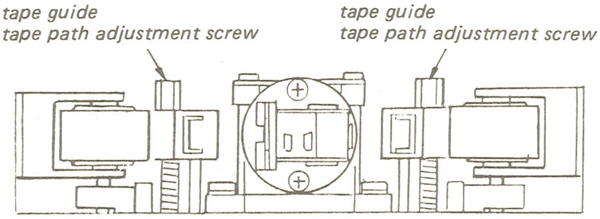
Adjustment Location: system control board



Tape Path Adjustment

When replacing the tape guide, be sure to perform the following adjustments.

1. Using a mirror tape cassette, adjust each of the adjustment screws until there is no tape curling near REC-PB/ERASE head side guide.
2. After the adjustment, lock the screws with locking compound.



3-2. ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

- Set the TAPE SELECT switches according to the tape as follows.

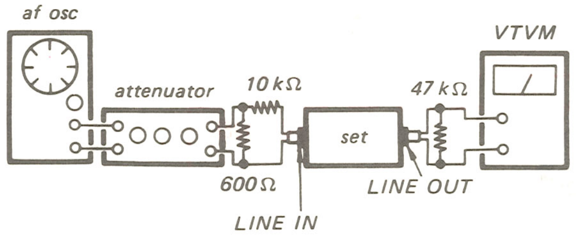
Tape	TAPE SELECT switch
CS-15	AUTO
CS-26	AUTO
CS-30	TYPE III (IV)
CS-40	TYPE III (IV)

- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch:	OFF
TAPE SELECT switch:	AUTO
TIMER switch:	OFF

- Standard Record:
  Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

– Record Mode –


af osc
attenuator
10 kΩ
600 Ω
LINE IN
set
LINE OUT
47 kΩ
VTVM

Standard Input Level

	LINE IN
source impedance	10 kΩ
input level	0.25 V (–10 dB)

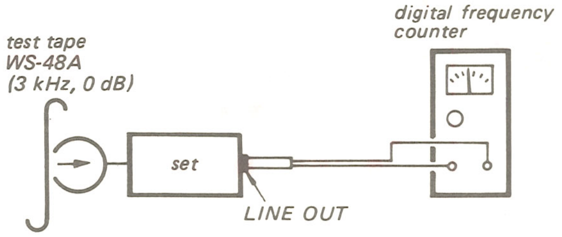
Standard Output Level

	LINE OUT
load impedance	47 kΩ
output level	0.44 V (–5 dB)

Tape Speed Adjustment

Procedure:

1. Mode: forward playback

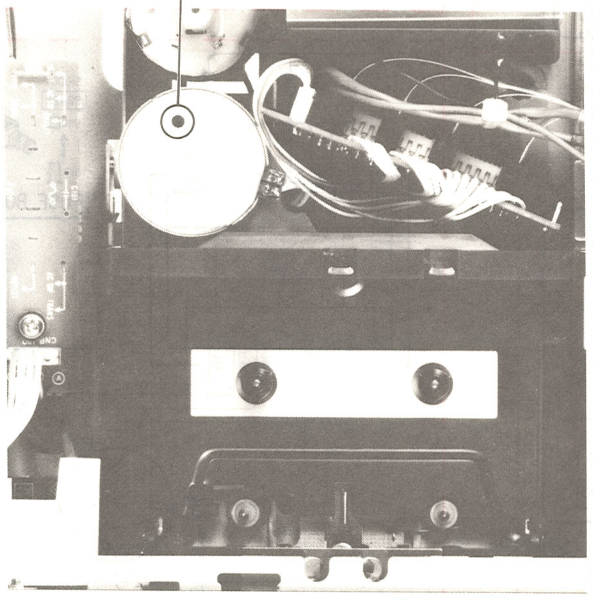

test tape
WS-48A
(3 kHz, 0 dB)
set
LINE OUT
digital frequency counter

Play back the beginning of tape in forward mode, and adjust the adjustable resistor that built in motor for 2,995 – 3,025 Hz reading on the frequency counter.

2. Play back at the tape position in the step 1 in reverse mode. Confirm that the frequency counter reading is 2,995 – 3,025 Hz at that time.
3. Play back the beginning of opposite side of the tape in forward and reverse mode. Confirm that the frequency counter reading is 2,995 – 3,025 Hz at that time.

Adjustment Location: Motor (M701)

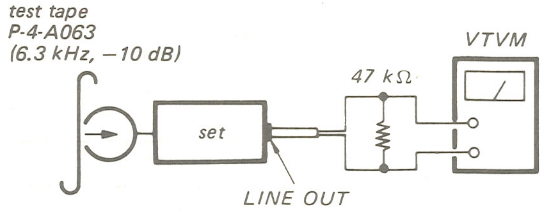
Built-in adjustable resistor
(Adjust the speed by using screwdriver. When turning the screw clockwise, speed is faster.)



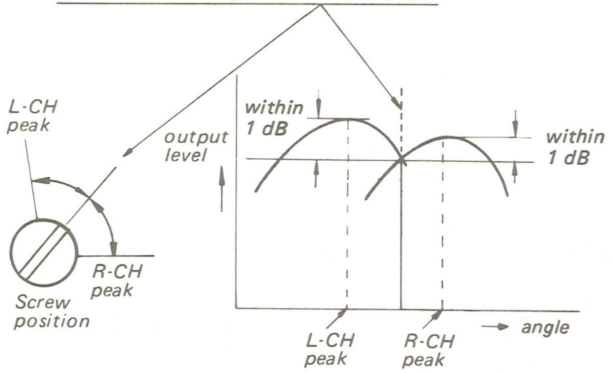
Forward Record/playback } Head Azimuth Adjustment
Reverse Record/playback

Procedure:

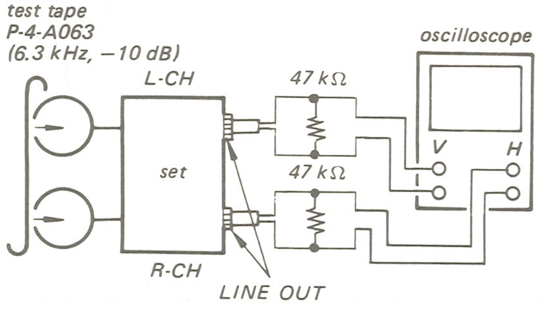
1. Forward playback
2. Mode: playback

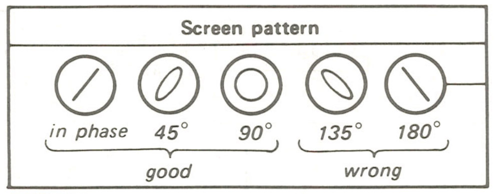

test tape
P-4-A063
(6.3 kHz, –10 dB)
set
LINE OUT
47 kΩ
VTVM

3. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1 dB.


L-CH peak
R-CH peak
Screw position
output level
within 1 dB
within 1 dB
L-CH peak
R-CH peak
angle

4. Mode: playback


test tape
P-4-A063
(6.3 kHz, –10 dB)
L-CH
R-CH
set
47 kΩ
47 kΩ
LINE OUT
oscilloscope
V
H

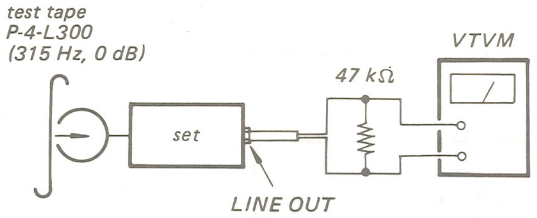

Screen pattern
in phase
45°
90°
135°
180°
good
wrong

5. After the adjustment, lock the screws with locking compound.
6. Reverse playback.
7. Perform step 2 – 5 similarly.

Playback Level Adjustment

Procedure:

Mode: forward playback


test tape
P-4-L300
(315 Hz, 0 dB)
set
LINE OUT
47 kΩ
VTVM

Adjust the RV104 (L-CH) and RV204 (R-CH) so that the specification is met.

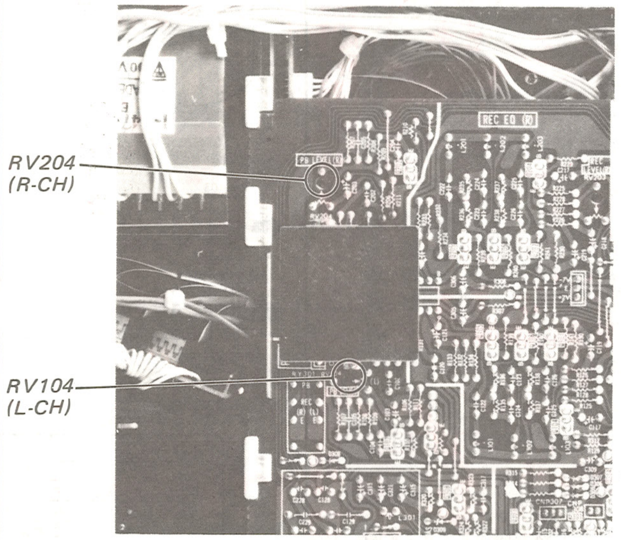
Specification:

LINE OUT level: 0.41 to 0.46 V
(–5.5 to –4.5 dB)

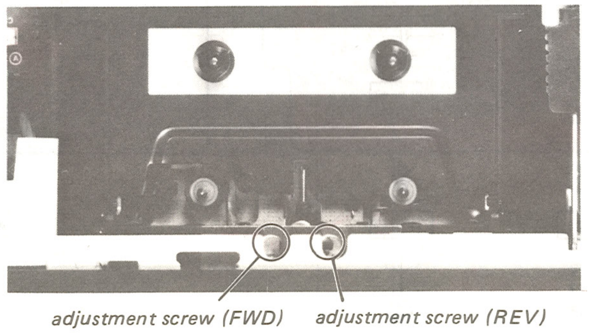
Level difference between channels:
less than 0.5 dB

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location: audio board


RV204
(R-CH)
RV104
(L-CH)

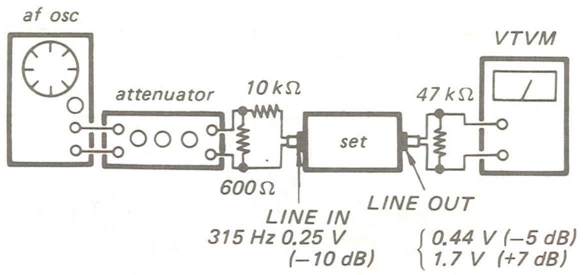
Adjustment Location:


adjustment screw (FWD)
adjustment screw (REV)

Level Meter Calibration

Procedure:

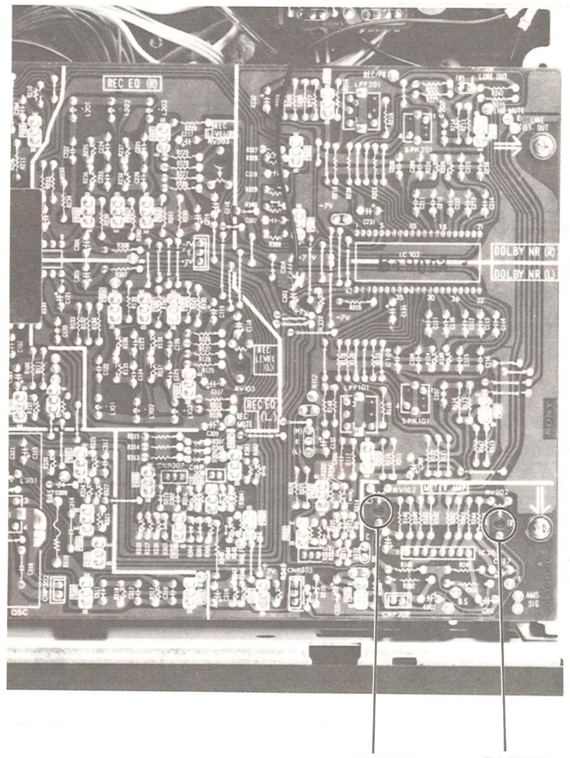
1. Mode: record


af osc
VTVM
attenuator
10 kΩ
47 kΩ
set
600 Ω
LINE OUT
LINE IN
315 Hz 0.25 V
(−10 dB)
0.44 V (−5 dB)
1.7 V (+7 dB)

2. Set the REC LEVEL control so that the LINE OUT level is 0.44 V (−5 dB).
3. Adjust RV102 (L-CH), RV202 (R-CH) so that the 8th segment from leftside of the level meter goes on and again turn it slowly in the reverse direction until the segment just goes off.

   Note: The adjustment should be made while decreasing the level.
4. Set the REC LEVEL control so that the LINE OUT level is 1.7 V (+7 dB). Make sure that all the lights in the segments go on.

Adjustment Location: audio board

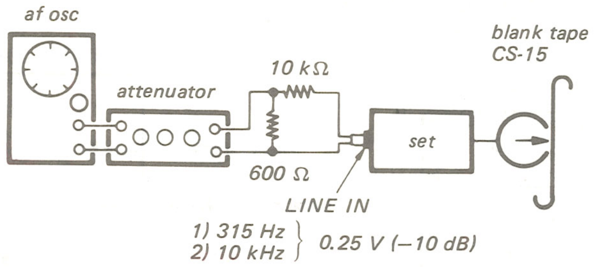

RV102
(L-CH)
RV202
(R-CH)

Record Bias Adjustment

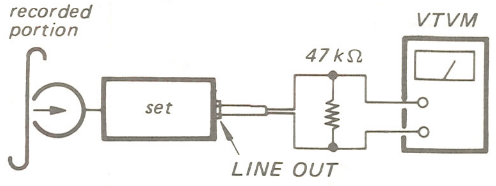
Setting:
REC LEVEL control: standard record (See page 17.)

Procedure:

1. Mode: record

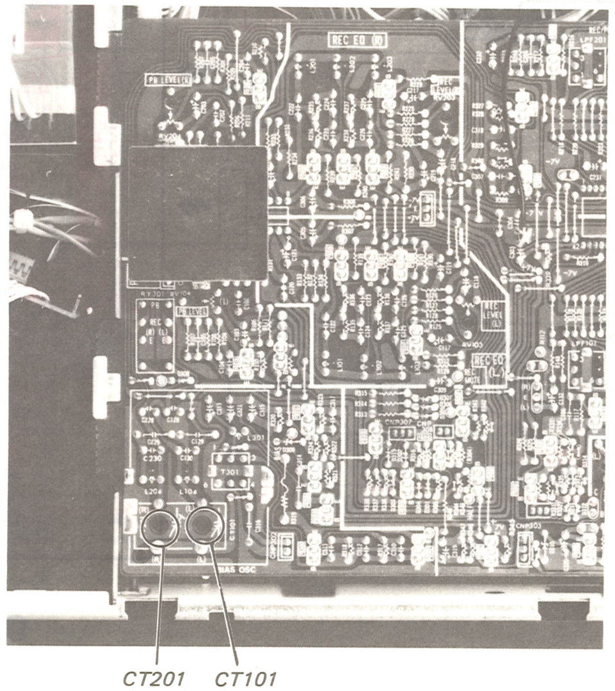

af osc
blank tape
CS-15
10 kΩ
attenuator
set
600 Ω
LINE IN
1) 315 Hz
2) 10 kHz
0.25 V (−10 dB)

2. Mode: playback


recorded
portion
VTVM
47 kΩ
set
LINE OUT

Confirm that the 10 kHz playback output is 0 dB relative to the 315 Hz output. If necessary, adjust CT101 (L-CH), CT201 (R-CH) and repeat the steps given above.

Adjustment Location: audio board

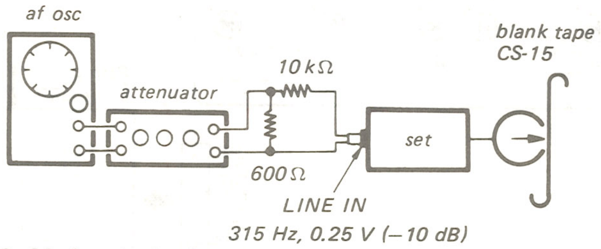

CT201
(R-CH)
CT101
(L-CH)

Record Level Adjustment

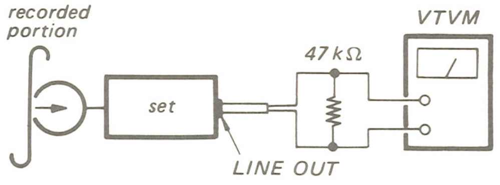
Setting:
REC LEVEL control: standard record (See page 17.)

Procedure:

1. Mode: record


af osc
blank tape
CS-15
10 kΩ
attenuator
set
600 Ω
LINE IN
315 Hz, 0.25 V (−10 dB)

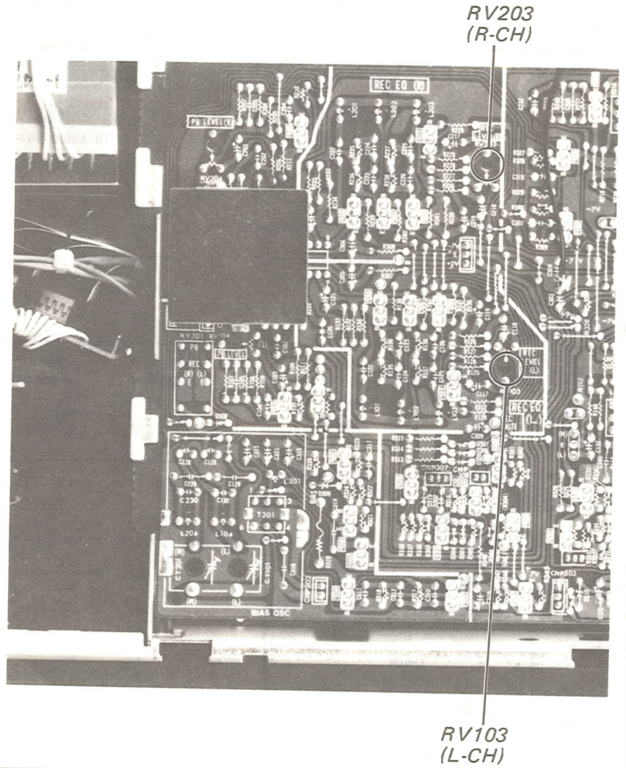
2. Mode: playback


recorded
portion
VTVM
47 kΩ
set
LINE OUT

3. Play back the signal recorded in step 1.
   Confirm that the signal level is within the specification below. If necessary, adjust RV103 (L-CH), RV203 (R-CH) and repeat the step 1-3.

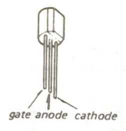
Specification:
LINE OUT level: 0.41−0.46 V
(−5.5 to −4.5 dB)

Adjustment Location: audio board

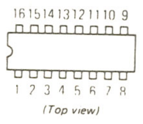

RV203
(R-CH)
RV103
(L-CH)

• Semiconductor Lead Layouts

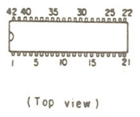
M5218L


gate anode cathode

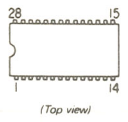
CX10032A
CX10034
CX10035
BA6146


16 15 14 13 12 11 10 9
1 2 3 4 5 6 7 8
(Top view)

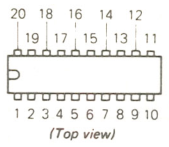
CX20187
CX564-131


42 40 35 30 25 22
1 5 10 15 21
(Top view)

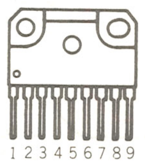
M50783SP
MSL9512RS


28
15
1
14
(Top view)

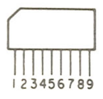
M50761-412P
LB1245


20 18 16 14 12
19 17 15 13 11
1 2 3 4 5 6 7 8 9 10
(Top view)

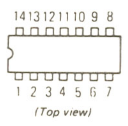
M54543L



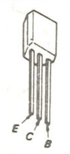
BA6208



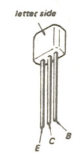
TC4069UBP


14 13 12 11 10 9 8
1 2 3 4 5 6 7
(Top view)

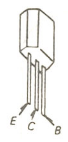
2SC2603F
DTA114ES
DTC124XS
DTA124ES
DTC124ES



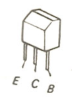
2SD1020
2SC2785


letter side
E C B

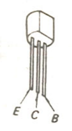
2SA1027R



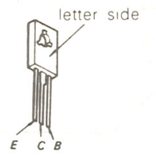
2SD774



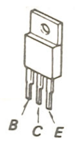
2SA952



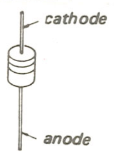
2SD809
2SB548-R


letter side
E C B

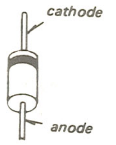
2SD1406



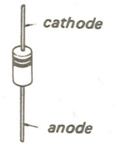
1SS202-1


cathode
anode

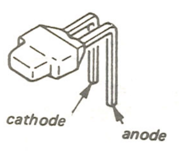
HZ6B1L
HZ11A1L
HZ6C2L
HZ9A2L
10E-2
HZ33-1L
HZ18-3L


cathode
anode

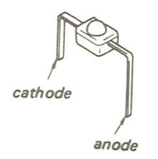
EQB01-07


cathode
anode

GL8HY001
GL8HD001
GL8PG001


cathode
anode

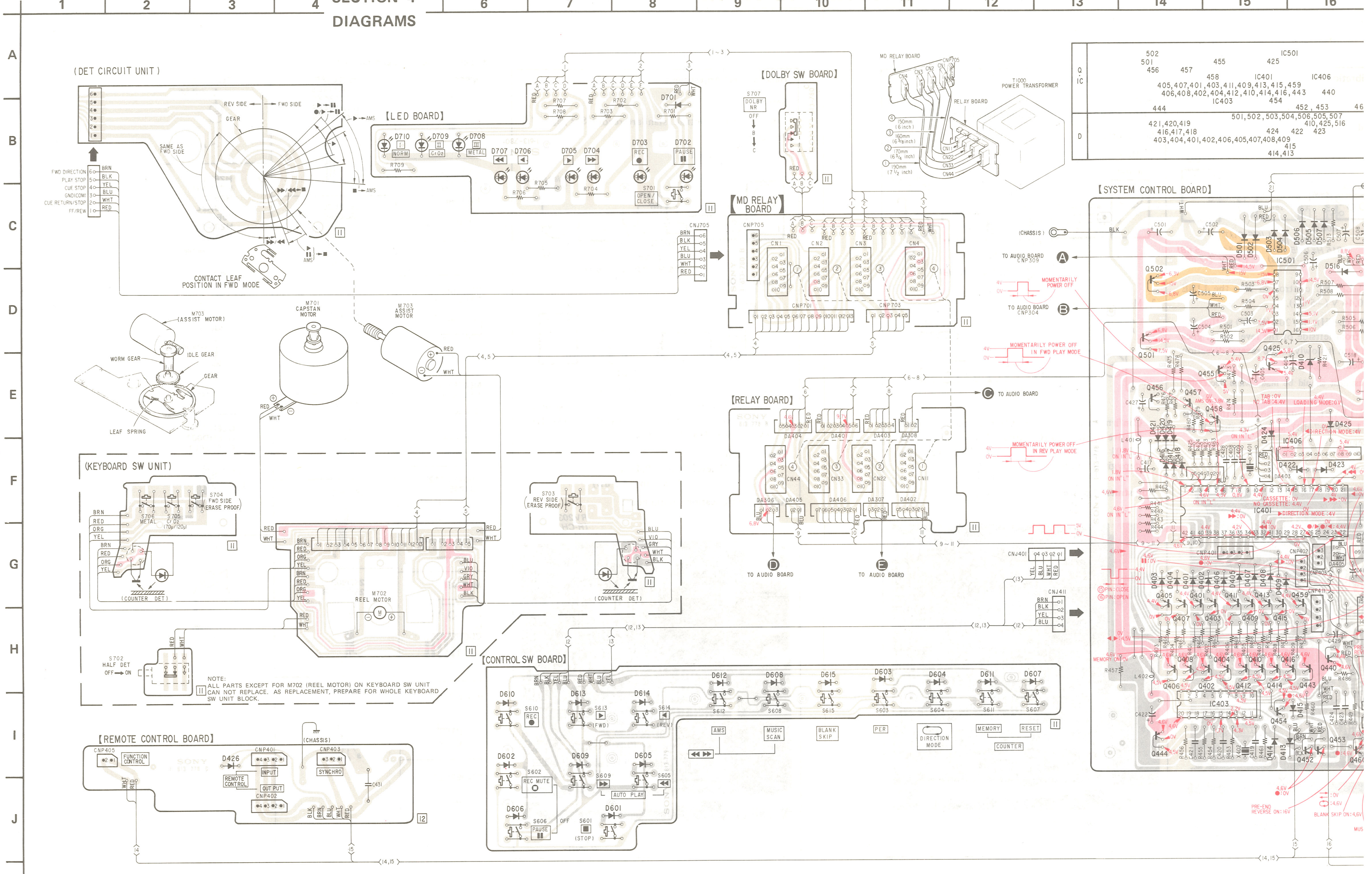
GL-1PG102


cathode
anode

SECTION 4 DIAGRAMS

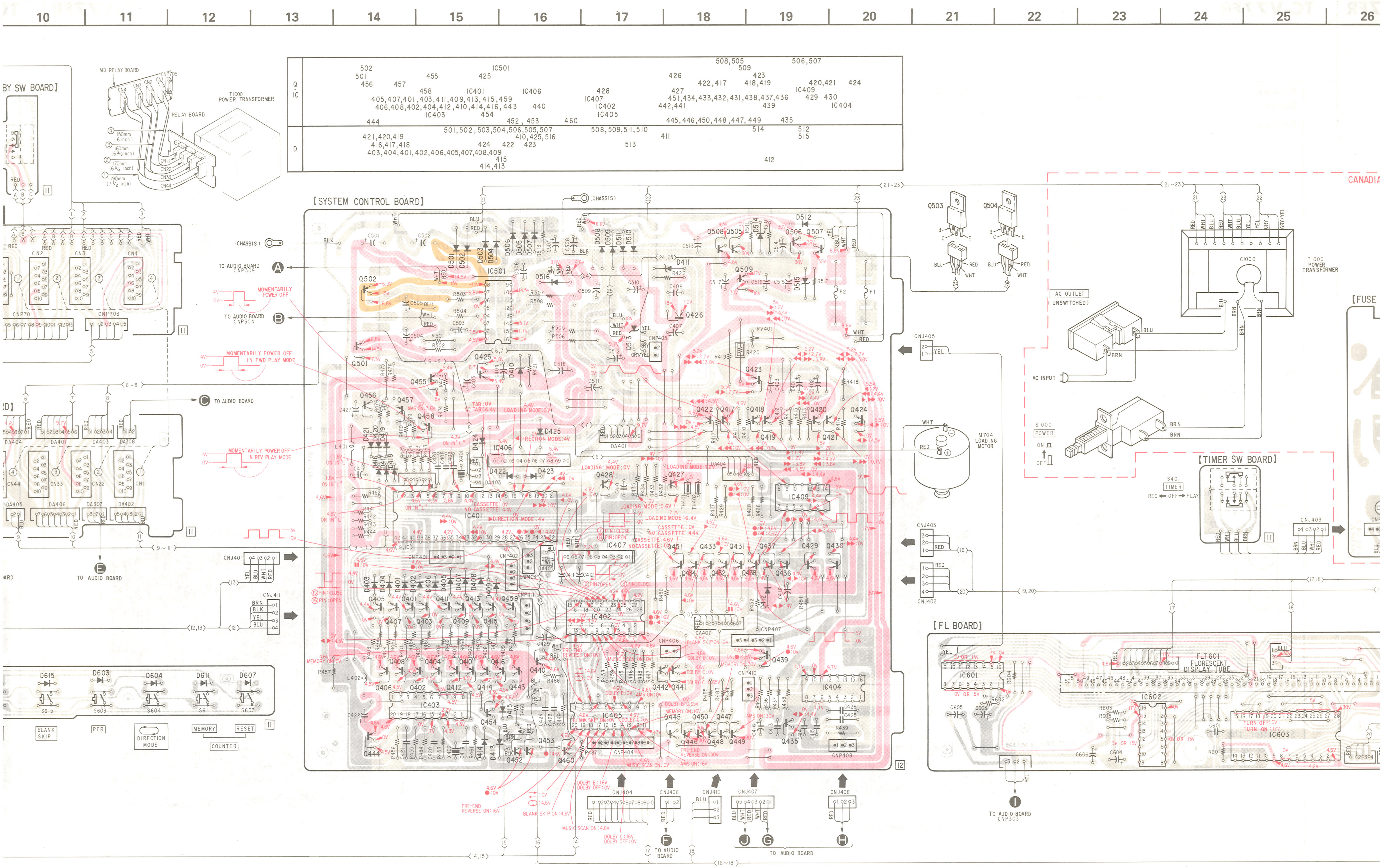
4-1. MOUNTING DIAGRAM – System Control Section –

- See page 21 for Semiconductor Lead Layouts.


1
2
3
4
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
(DET CIRCUIT UNIT)
REV SIDE
FWD SIDE
GEAR
SAME AS FWD SIDE
AMS
CONTACT LEAF POSITION IN FWD MODE
FWD DIRECTION
PLAY STOP
CUE STOP
GND(COM)
CUE RETURN/STOP
FF/REW
[LED BOARD]
D710
D709
D708
NORM
CrO2
METAL
D707
D706
D705
D704
D703
D702
D701
REC
PAUSE
S701 OPEN/CLOSE
[DOLBY SW BOARD]
S707 DOLBY NR
OFF
B
C
[MD RELAY BOARD]
CNP705
CN1
CN2
CN3
CN4
CNP701
CNP703
CNJ705
MD RELAY BOARD
RELAY BOARD
T1000 POWER TRANSFORMER
150mm (6 inch)
160mm (6 5/8 inch)
170mm (6 3/4 inch)
190mm (7 1/2 inch)
M703 (ASSIST MOTOR)
M701 CAPSTAN MOTOR
M703 ASSIST MOTOR
WORM GEAR
IDLE GEAR
GEAR
LEAF SPRING
[RELAY BOARD]
DA404
DA401
DA403
DA308
CN44
CN33
CN22
CN11
DA306
DA405
DA406
DA307
DA402
TO AUDIO BOARD
(KEYBOARD SW UNIT)
S704 FWD SIDE ERASE PROOF
S706 METAL
S705 CrO2 (70μ/120μ)
S703 REV SIDE ERASE PROOF
(COUNTER DET)
M702 REEL MOTOR
S702 HALF DET
OFF → ON
[CONTROL SW BOARD]
D610
D613
D614
D612
D608
D615
D603
D604
D611
D607
S610 REC
S613 (FWD)
S614 (REV)
S612
S608
S615
S603
S604
S611
S607
AMS
MUSIC SCAN
BLANK SKIP
PER
DIRECTION MODE
MEMORY
RESET
COUNTER
D602
D609
D605
S602 REC MUTE
S609
S605
AUTO PLAY
D606
D601
S606 PAUSE
S601 (STOP)
OFF
[REMOTE CONTROL BOARD]
CNP405
FUNCTION CONTROL
D426
CNP401
INPUT
REMOTE CONTROL
OUT PUT
CNP402
CNP403
SYNCHRO
(CHASSIS)
C431
Q IC
IC501
IC401
IC406
IC403
D
[SYSTEM CONTROL BOARD]
(CHASSIS)
TO AUDIO BOARD CNP309
TO AUDIO BOARD CNP304
MOMENTARILY POWER OFF
MOMENTARILY POWER OFF IN FWD PLAY MODE
MOMENTARILY POWER OFF IN REV PLAY MODE
TO AUDIO BOARD
CNJ401
CNJ411
LOADING MODE
DIRECTION MODE
CASSETTE
NO CASSETTE
MEMORY ON
PRE-END REVERSE ON
BLANK SKIP ON
PIN: CLOSE
PIN: OPEN
RED
WHT
BRN
BLK
YEL
BLU
ORG
GRY
VIO

NOTE:
ALL PARTS EXCEPT FOR M702 (REEL MOTOR) ON KEYBOARD SW UNIT CAN NOT REPLACE. AS REPLACEMENT, PREPARE FOR WHOLE KEYBOARD SW UNIT BLOCK.

	14	15	16	17	18	19	20
Q · IC	502 501 456 457 444	455 425 458 IC401 405,407,401,403,411,409,413,415,459 406,408,402,404,412,410,414,416,443 IC403 454	IC501 IC406 440 452 , 453 460	428 IC407 IC402 IC405	508,505 509 426 422,417 427 451,434,433,432,431,438,437,436 442,441 445,446,450,448,447,449	506,507 423 418,419 420,421 IC409 429 439 435	424 430 IC404
D	421,420,419 416,417,418	501,502,503,504,506,505,507 424 403,404,401,402,406,405,407,408,409 414,413	410,425,516 422 423 415	508,509,511,510 513	411	514 512 515 412	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16
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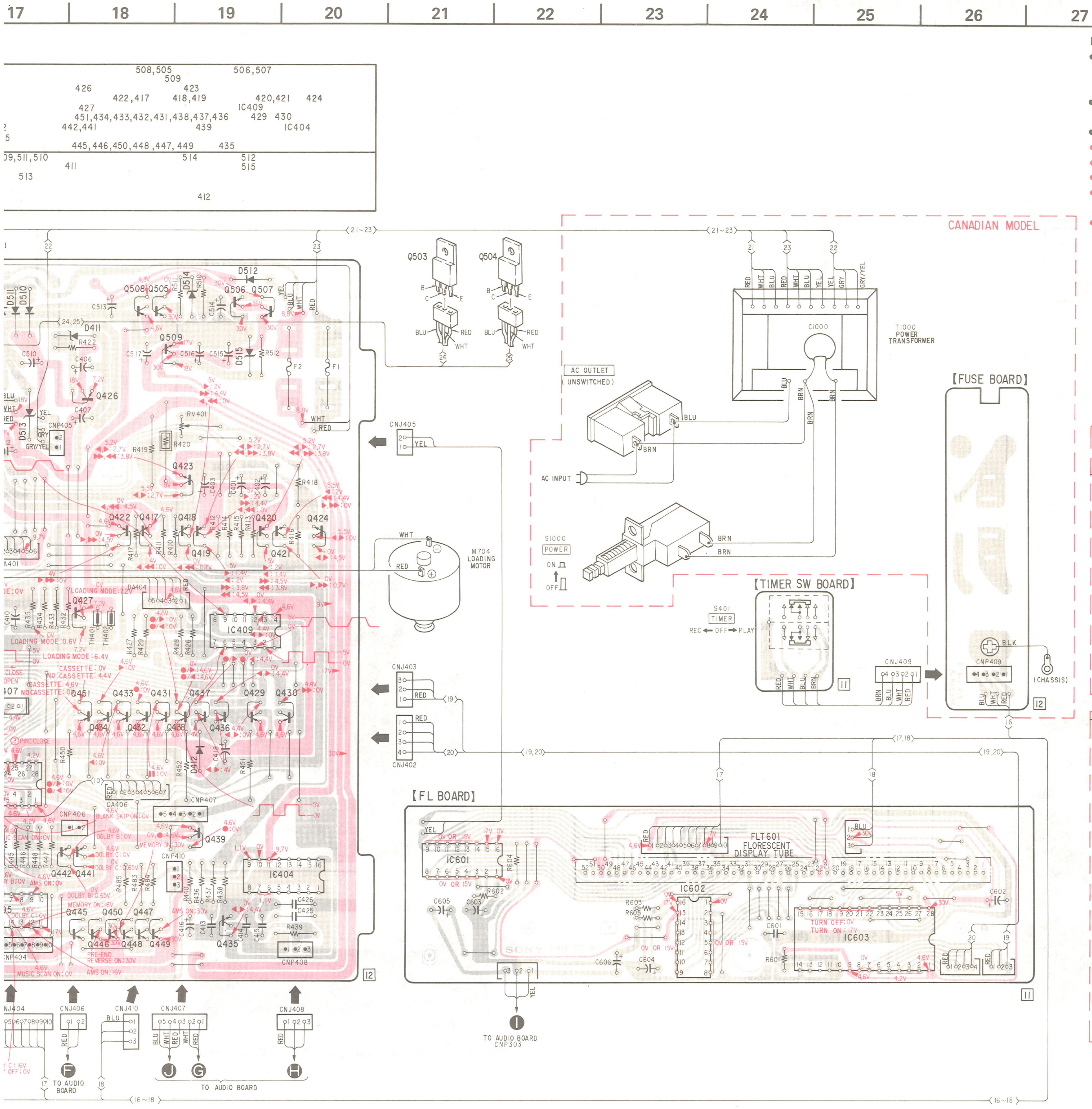
19
20
21
22
23
24
25
26
BY SW BOARD】
MD RELAY BOARD
CNP705
T1000 POWER TRANSFORMER
RELAY BOARD
150mm (6 inch)
160mm (6 5/16 inch)
170mm (6 3/4 inch)
190mm (7 1/2 inch)
CN11
CN22
CN33
CN44
CNP701
CNP703
CN2
CN3
CN4
(CHASSIS)
TO AUDIO BOARD CNP309
TO AUDIO BOARD CNP304
MOMENTARILY POWER OFF
MOMENTARILY POWER OFF IN FWD PLAY MODE
MOMENTARILY POWER OFF IN REV PLAY MODE
TO AUDIO BOARD
DA404
DA401
DA403
DA308
DA406
DA307
DA402
DA405
TO AUDIO BOARD
CNJ401
CNJ411
D615
D603
D604
D611
D607
S615
S603
S604
S611
S607
BLANK SKIP
PER
DIRECTION MODE
MEMORY
RESET
COUNTER
【SYSTEM CONTROL BOARD】
IC501
IC401
IC402
IC403
IC404
IC405
IC406
IC407
IC409
LOADING MODE : 0V
DIRECTION MODE : 4V
CASSETTE : 0V
NO CASSETTE : 4.4V
PIN : CLOSE
PIN : OPEN
DOLBY B : 16V
DOLBY OFF : 0V
DOLBY C : 16V
PRE-END REVERSE ON : 16V
BLANK SKIP ON : 4.6V
MUSIC SCAN ON : 4.6V
MEMORY ON : 16V
AMS ON : 16V
CNJ404
CNJ406
CNJ410
CNJ407
CNJ408
TO AUDIO BOARD
Q503
Q504
CANADI
T1000 POWER TRANSFORMER
C1000
AC OUTLET (UNSWITCHED)
AC INPUT
S1000 POWER
ON
OFF
M704 LOADING MOTOR
CNJ405
CNJ403
CNJ402
【TIMER SW BOARD】
S401 TIMER
REC ← OFF → PLAY
CNJ409
【FUSE
【FL BOARD】
IC601
IC602
IC603
FLT601 FLORESCENT DISPLAY TUBE
TURN OFF : 0V
TURN ON : 17V
TO AUDIO BOARD CNP303


17
18
19
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21
22
23
24
25
26
508,505
509
506,507
426
423
422,417
418,419
420,421
424
427
IC409
451,434,433,432,431,438,437,436
429
430
442,441
439
IC404
445,446,450,448,447,449
435
09,511,510
514
512
515
411
513
412
Q503
Q504
CANADIAN MODEL
T1000 POWER TRANSFORMER
C1000
AC OUTLET (UNSWITCHED)
AC INPUT
S1000 POWER
ON
OFF
[FUSE BOARD]
[TIMER SW BOARD]
S401 TIMER
REC ← OFF → PLAY
CNJ409
CNP409
(CHASSIS)
M704 LOADING MOTOR
CNJ405
CNJ403
CNJ402
[FL BOARD]
IC601
IC602
IC603
IC604
FLT601 FLORESCENT DISPLAY TUBE
TURN OFF: 0V
TURN ON: 17V
TO AUDIO BOARD CNP303
CNJ404
CNJ406
CNJ410
CNJ407
CNJ408
TO AUDIO BOARD
LOADING MODE: 0.6V
LOADING MODE: 6.4V
CASSETTE: 0V
NO CASSETTE: 4.4V
MEMORY ON: 16V
DOLBY B: 0.65V
PB-END
REVERSE ON: 30V
AMS ON: 16V
MUSIC SCAN ON: 0V

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¹/₄W or less unless otherwise specified.
- ▭ : nonflammable resistor.
- ▭ : adjustment for repair.
- ━━ : B+ bus.
- ━ ━ : B– bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V).

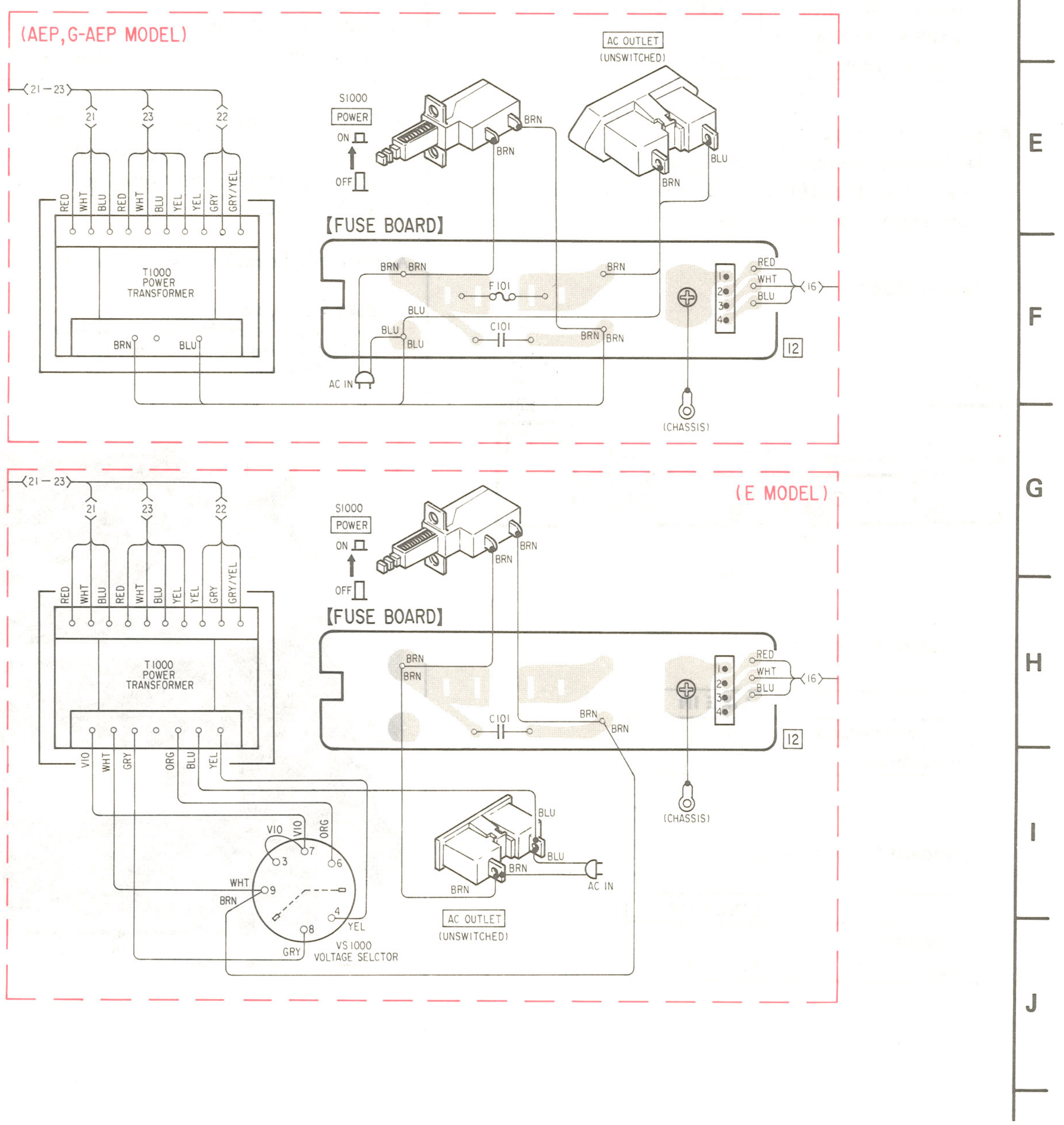
◀ : REV ●/◀ : REC REV
●/▶ : REC FWD
● : REC ▮▮ : PAUSE

Note on Mounting Diagram:

- ○—— : parts extracted from the component side.
- ▨ : B + pattern
- ▨ : B – pattern

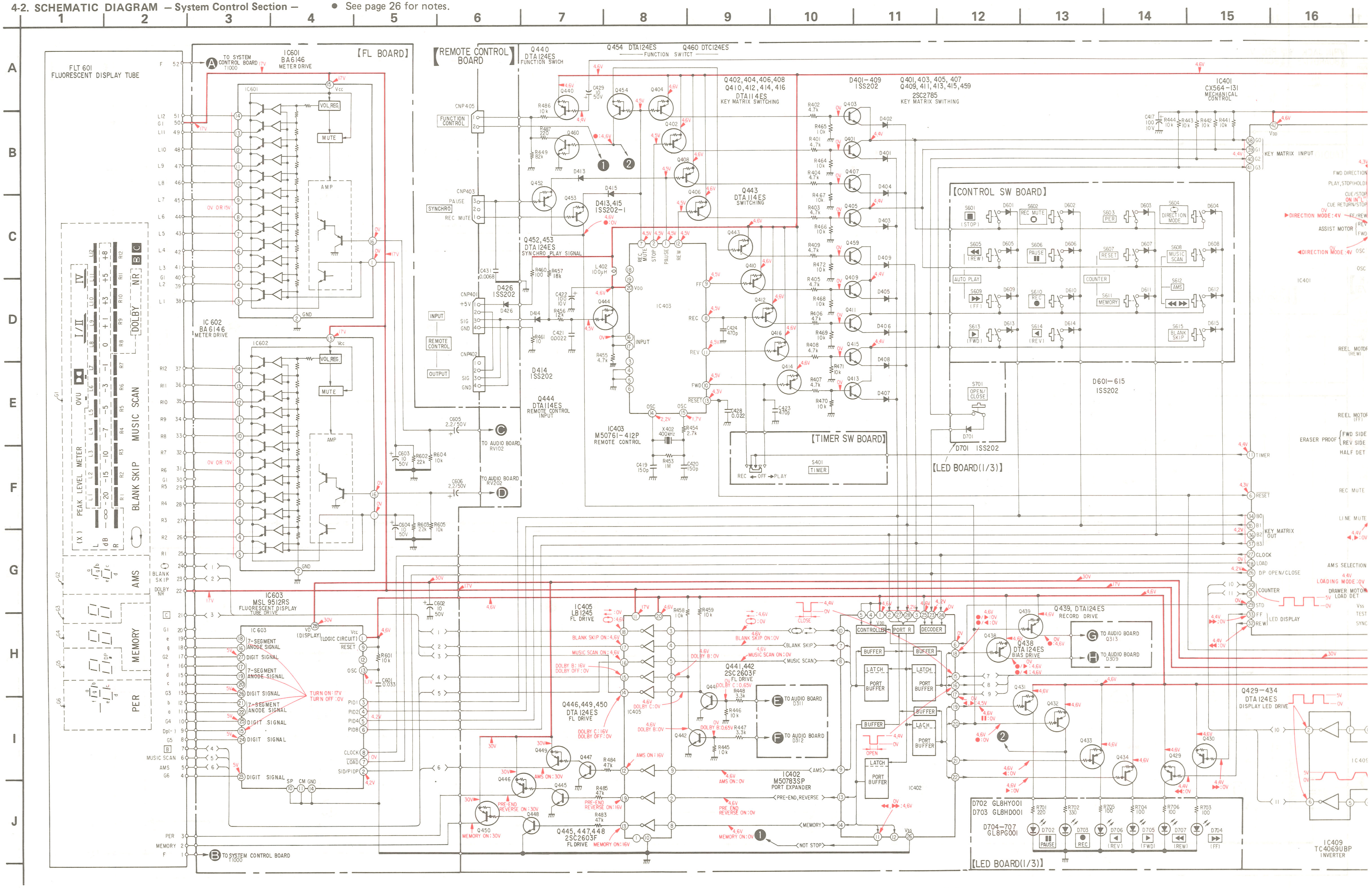
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

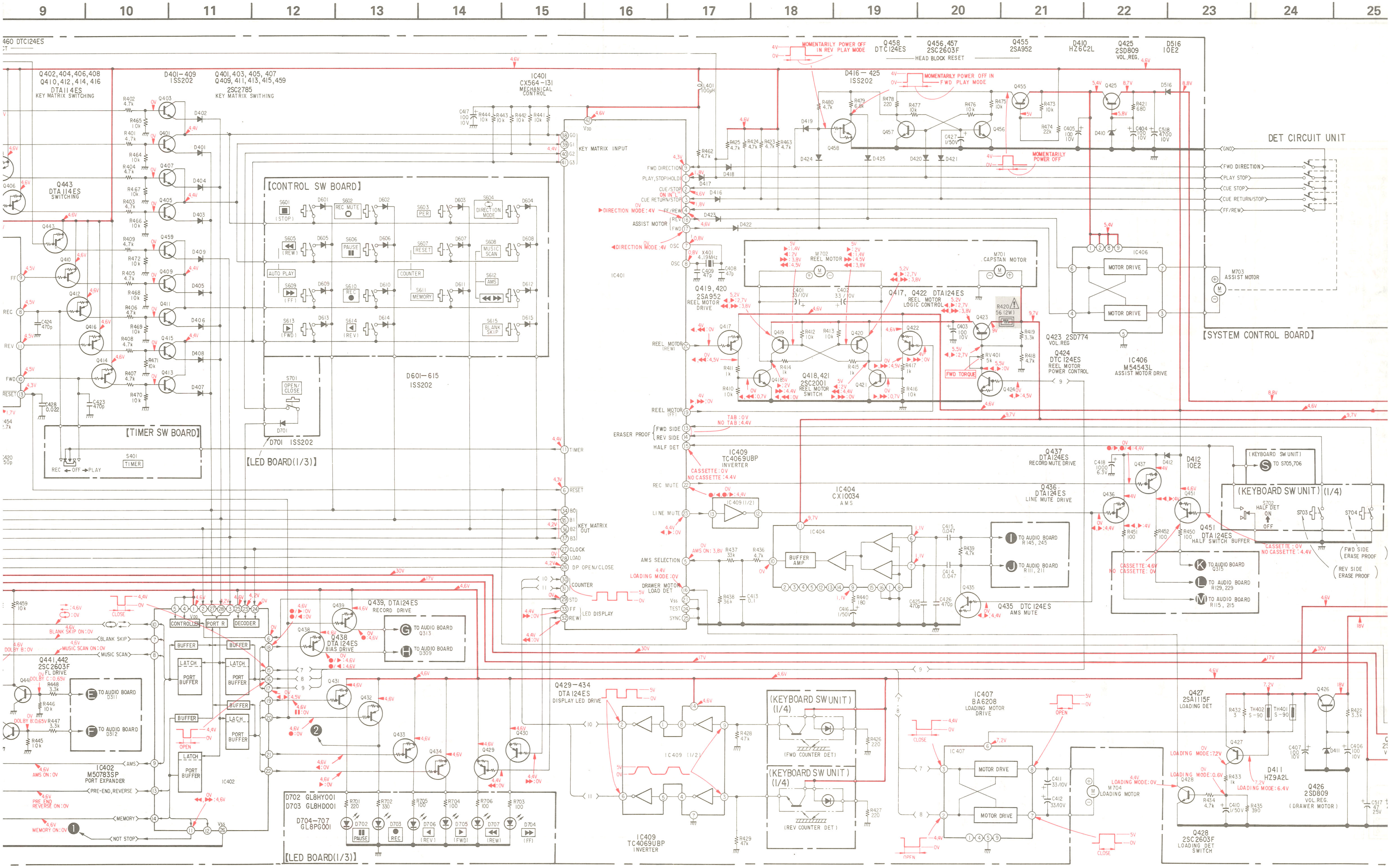
Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


27
28
29
30
31
32
A
B
C
D
E
F
G
H
I
J
(AEP, G-AEP MODEL)
AC OUTLET (UNSWITCHED)
S1000 POWER
ON
OFF
[FUSE BOARD]
T1000 POWER TRANSFORMER
AC IN
(CHASSIS)
(E MODEL)
VS1000 VOLTAGE SELCTOR
AC IN

4-2. SCHEMATIC DIAGRAM — System Control Section —

• See page 26 for notes.


FLT 601 FLUORESCENT DISPLAY TUBE
PEAK LEVEL METER
DOLBY NR
MUSIC SCAN
BLANK SKIP
AMS
MEMORY
PER
TO SYSTEM CONTROL BOARD T1000
IC601 BA6146 METER DRIVE
[FL BOARD]
IC602 BA6146 METER DRIVE
VOL REG
MUTE
AMP
GND
IC603 MSL 9512RS FLUORESCENT DISPLAY TUBE DRIVE
7-SEGMENT ANODE SIGNAL
DIGIT SIGNAL
TURN ON: 17V
TURN OFF: 0V
TO SYSTEM CONTROL BOARD T1000
[REMOTE CONTROL BOARD]
FUNCTION CONTROL
SYNCHRO
INPUT
REMOTE CONTROL
OUTPUT
TO AUDIO BOARD RV102
TO AUDIO BOARD RV202
Q440 DTA124ES FUNCTION SWICH
Q454 DTA124ES FUNCTION SWITCT
Q460 DTC124ES
Q452,453 DTA124ES SYNCHRO PLAY SIGNAL
D413,415 1SS202-1
D426 1SS202
D414 1SS202
Q444 DTA114ES REMOTE CONTROL INPUT
IC403 M50761-412P REMOTE CONTROL
Q443 DTA114ES SWITCHING
Q402,404,406,408 Q410,412,414,416 DTA114ES KEY MATRIX SWITCHING
D401-409 1SS202
Q401,403,405,407 Q409,411,413,415,459 2SC2785 KEY MATRIX SWITHING
[TIMER SW BOARD]
S401 TIMER
REC ← OFF → PLAY
IC401 CX564-131 MECHANICAL CONTROL
[CONTROL SW BOARD]
S601 (STOP)
S602 REC MUTE
S603 PER
S604 DIRECTION MODE
S605 (REW)
S606 PAUSE
S607 RESET
S608 MUSIC SCAN
AUTO PLAY
COUNTER
S609 (FF)
S610 REC
S611 MEMORY
S612 AMS
S613 (FWD)
S614 (REV)
S615 BLANK SKIP
S701 OPEN/CLOSE
D601-615 1SS202
D701 1SS202
[LED BOARD(1/3)]
KEY MATRIX INPUT
TIMER
RESET
KEY MATRIX OUT
CLOCK
LOAD
DP OPEN/CLOSE
COUNTER
STD
FF
REW
LED DISPLAY
IC405 LB1245 FL DRIVE
Q446,449,450 DTA124ES FL DRIVE
Q445,447,448 2SC2603F FL DRIVE
Q441,442 2SC2603F FL DRIVE
TO AUDIO BOARD D311
TO AUDIO BOARD D312
IC402 M50783SP PORT EXPANDER
CONTROLLER
PORT R
DECODER
BUFFER
LATCH
PORT BUFFER
BLANK SKIP
MUSIC SCAN
AMS
PRE-END, REVERSE
MEMORY
NOT STOP
Q439 DTA124ES RECORD DRIVE
Q438 DTA124ES BIAS DRIVE
TO AUDIO BOARD Q313
TO AUDIO BOARD D309
Q429-434 DTA124ES DISPLAY LED DRIVE
D702 GL8HY001
D703 GL8HD001
D704-707 GL8PG001
PAUSE
REC
(REV)
(FWD)
(REW)
(FF)
IC409 TC4069UBP INVERTER
FWD DIRECTION
PLAY, STOP(HOLD)
CUE/STOP
CUE RETURN/STOP
DIRECTION MODE
ASSIST MOTOR
REEL MOTOR (REW)
REEL MOTOR (FF)
ERASER PROOF
FWD SIDE
REV SIDE
HALF DET
REC MUTE
LINE MUTE
AMS SELECTION
LOADING MODE
DRAWER MOTOR
LOAD DET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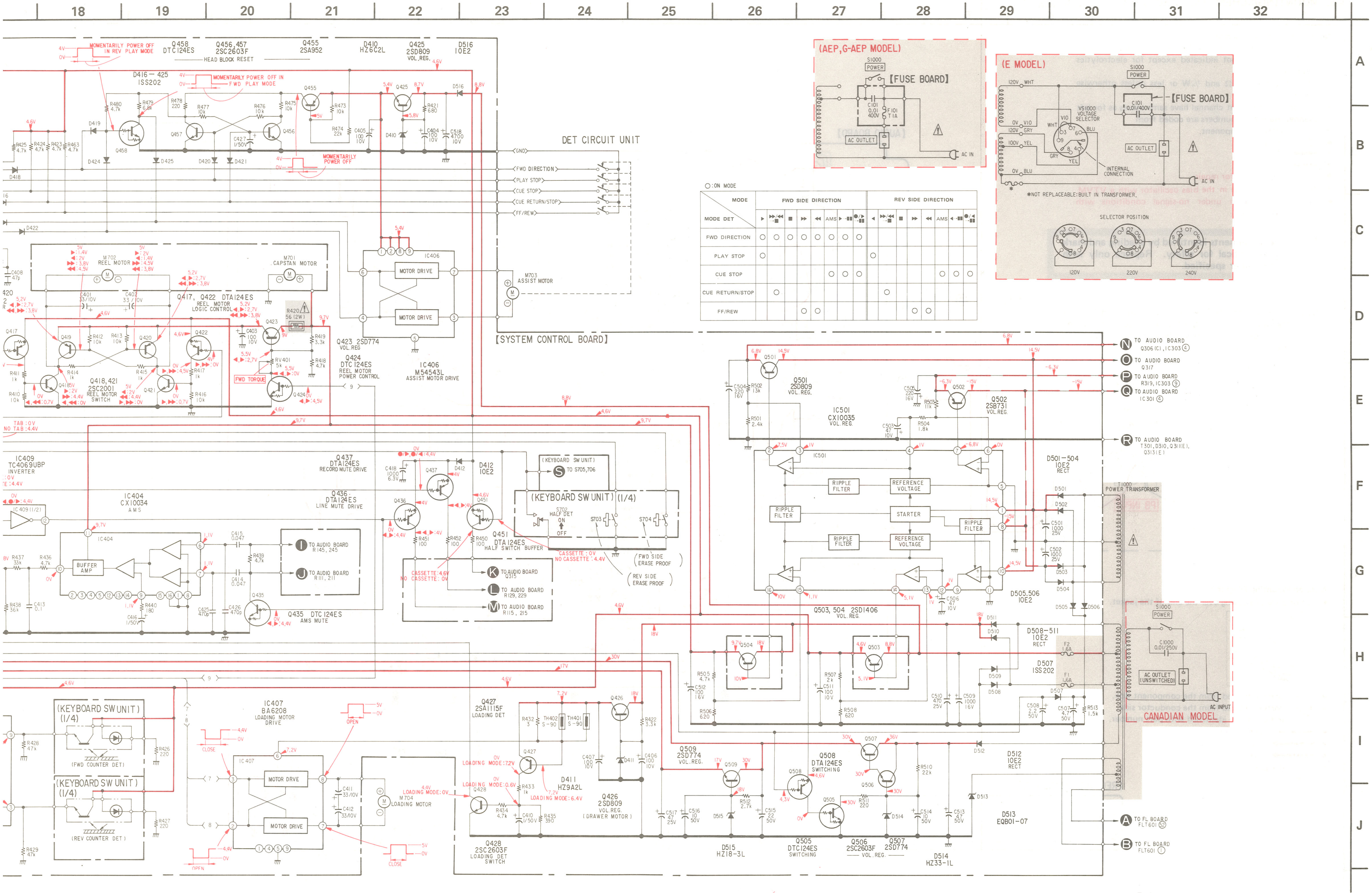
24
25
Q402,404,406,408
Q410,412,414,416
DTA114ES
KEY MATRIX SWITCHING
D401–409
1SS202
Q401,403,405,407
Q409,411,413,415,459
2SC2785
KEY MATRIX SWITCHING
IC401
CX564-131
MECHANICAL
CONTROL
L401
100µH
KEY MATRIX INPUT
Q443
DTA114ES
SWITCHING
[CONTROL SW BOARD]
S601 (STOP)
S602 REC MUTE
S603 PER
S604 DIRECTION MODE
S605 (REW)
S606 PAUSE
S607 RESET
S608 MUSIC SCAN
AUTO PLAY
S609 (FF)
S610 REC
COUNTER
S611 MEMORY
S612 AMS
S613 (FWD)
S614 (REV)
S615 BLANK SKIP
D601–615
1SS202
S701 OPEN/CLOSE
D701 1SS202
[LED BOARD(1/3)]
[TIMER SW BOARD]
S401 TIMER
REC ← OFF → PLAY
MOMENTARILY POWER OFF IN REV PLAY MODE
Q458 DTC124ES
Q456,457 2SC2603F
HEAD BLOCK RESET
Q455 2SA952
D410 HZ6C2L
Q425 2SD809 VOL.REG.
D516 10E2
D416–425 1SS202
MOMENTARILY POWER OFF IN FWD PLAY MODE
MOMENTARILY POWER OFF
DET CIRCUIT UNIT
GND
FWD DIRECTION
PLAY STOP
CUE STOP
CUE RETURN/STOP
FF/REW
FWD DIRECTION
PLAY,STOP(HOLD)
CUE/STOP
CUE RETURN/STOP
DIRECTION MODE: 4V
ASSIST MOTOR
DIRECTION MODE: 4V
OSC
X401 4.19MHz
M702 REEL MOTOR
M701 CAPSTAN MOTOR
IC406
MOTOR DRIVE
MOTOR DRIVE
M703 ASSIST MOTOR
Q419,420 2SA952 REEL MOTOR DRIVE
Q417,Q422 DTA124ES REEL LOGIC CONTROL
R420 56 (2W)
Q423 2SD774 VOL.REG
Q424 DTC124ES REEL MOTOR POWER CONTROL
IC406 M54543L ASSIST MOTOR DRIVE
[SYSTEM CONTROL BOARD]
REEL MOTOR (REW)
Q418,421 2SC2001 REEL MOTOR SWITCH
FWD TORQUE
RV401 5k
REEL MOTOR (FF)
TAB: 0V
NO TAB: 4.4V
ERASER PROOF
FWD SIDE
REV SIDE
HALF DET
IC409 TC4069UBP INVERTER
CASSETTE: 0V
NO CASSETTE: 4.4V
REC MUTE
LINE MUTE
IC404 CX10034 AMS
Q437 DTA124ES RECORD MUTE DRIVE
Q436 DTA124ES LINE MUTE DRIVE
D412 10E2
(KEYBOARD SW UNIT) TO S705,706
(KEYBOARD SW UNIT) (1/4)
S702 HALF DET
S703
S704
Q451 DTA124ES HALF SWITCH BUFFER
CASSETTE: 0V
NO CASSETTE: 4.4V
FWD SIDE ERASE PROOF
REV SIDE ERASE PROOF
TIMER
RESET
KEY MATRIX OUT
CLOCK
LOAD
DP OPEN/CLOSE
COUNTER
STD
FF
REW
LED DISPLAY
AMS SELECTION
AMS ON: 3.8V
LOADING MODE: 0V
DRAWER MOTOR LOAD DET
VSS
TEST
SYNC
BUFFER AMP
TO AUDIO BOARD R145,245
TO AUDIO BOARD R111,211
Q435 DTC124ES AMS MUTE
TO AUDIO BOARD Q315
TO AUDIO BOARD R129,229
TO AUDIO BOARD R115,215
CONTROLLER
PORT R
DECODER
BUFFER
LATCH
PORT BUFFER
Q439,DTA124ES RECORD DRIVE
Q438 DTA124ES BIAS DRIVE
TO AUDIO BOARD Q313
TO AUDIO BOARD Q309
BLANK SKIP ON: 0V
BLANK SKIP
MUSIC SCAN ON: 0V
MUSIC SCAN
DOLBY B: 0V
Q441,442 2SC2603F
FL DRIVE
DOLBY C: 0.65V
DOLBY B: 0.65V
TO AUDIO BOARD D311
TO AUDIO BOARD D312
AMS ON: 0V
IC402 M50783SP PORT EXPANDER
PRE-END, REVERSE
PRE END REVERSE ON: 0V
MEMORY
MEMORY ON: 0V
NOT STOP
Q429–434 DTA124ES DISPLAY LED DRIVE
D702 GL8HY001
D703 GL8HD001
D704–707 GL8PG001
PAUSE
REC
(REV)
(FWD)
(REW)
(FF)
[LED BOARD(1/3)]
IC409 (1/2)
IC409 TC4069UBP INVERTER
(KEYBOARD SW UNIT) (1/4)
(FWD COUNTER DET)
(REV COUNTER DET)
IC407 BA6208 LOADING MOTOR DRIVE
MOTOR DRIVE
MOTOR DRIVE
OPEN
CLOSE
M704 LOADING MOTOR
LOADING MODE: 0V
Q427 2SA1115F LOADING DET
TH402 S-90
TH401 S-90
D411 HZ9A2L
LOADING MODE: 7.2V
LOADING MODE: 0.6V
LOADING MODE: 6.4V
Q428 2SC2603F LOADING DET SWITCH
Q426 2SD809 VOL.REG. (DRAWER MOTOR)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23
24
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26
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29
30
31
32
A
B
C
D
E
F
G
H
I
J
DET CIRCUIT UNIT
[SYSTEM CONTROL BOARD]
(AEP, G-AEP MODEL)
[FUSE BOARD]
AC OUTLET
AC IN
(E MODEL)
S1000 POWER
VS1000 VOLTAGE SELECTOR
INTERNAL CONNECTION
*NOT REPLACEABLE: BUILT IN TRANSFORMER.
SELECTOR POSITION
120V
220V
240V
MOMENTARILY POWER OFF IN REV PLAY MODE
MOMENTARILY POWER OFF IN FWD PLAY MODE
MOMENTARILY POWER OFF
HEAD BLOCK RESET
Q458 DTC124ES
Q456, 457 2SC2603F
Q455 2SA952
D410 HZ6C2L
Q425 2SD809 VOL. REG.
D516 10E2
D416 – 425 1SS202
GND
FWD DIRECTION
PLAY STOP
CUE STOP
CUE RETURN/STOP
FF/REW
M702 REEL MOTOR
M701 CAPSTAN MOTOR
M703 ASSIST MOTOR
IC406 MOTOR DRIVE
IC406 M54543L ASSIST MOTOR DRIVE
Q417, Q422 DTA124ES REEL MOTOR LOGIC CONTROL
Q418, 421 2SC2001 REEL MOTOR SWITCH
Q423 2SD774 VOL. REG
Q424 DTC124ES REEL MOTOR POWER CONTROL
FWD TORQUE
TAB: 0V
NO TAB: 4.4V
IC409 TC4069UBP INVERTER
IC404 CX10034 AMS
BUFFER AMP
Q437 DTA124ES RECORD MUTE DRIVE
Q436 DTA124ES LINE MUTE DRIVE
D412 10E2
Q451 DTA124ES HALF SWITCH BUFFER
Q435 DTC124ES AMS MUTE
(KEYBOARD SW UNIT)
TO S705,706
(KEYBOARD SW UNIT) (1/4)
S702 HALF DET
S703
S704
(FWD SIDE ERASE PROOF)
(REV SIDE ERASE PROOF)
CASSETTE: 0V
NO CASSETTE: 4.4V
TO AUDIO BOARD R145, 245
TO AUDIO BOARD R111, 211
TO AUDIO BOARD Q315
TO AUDIO BOARD R129, 229
TO AUDIO BOARD R115, 215
IC407 BA6208 LOADING MOTOR DRIVE
M704 LOADING MOTOR
Q427 2SA1115F LOADING DET
Q428 2SC2603F LOADING DET SWITCH
D411 HZ9A2L
Q426 2SD809 VOL REG. (DRAWER MOTOR)
LOADING MODE: 7.2V
LOADING MODE: 0.6V
LOADING MODE: 6.4V
LOADING MODE: 0V
OPEN
CLOSE
(FWD COUNTER DET)
(REV COUNTER DET)
TO AUDIO BOARD Q306 (C), IC303 ④
TO AUDIO BOARD Q317
TO AUDIO BOARD R319, IC303 ⑨
TO AUDIO BOARD IC301 ④
TO AUDIO BOARD T301, D310, Q311(E), Q313(E)
Q501 2SD809 VOL. REG.
Q502 2SB731 VOL. REG.
IC501 CX10035 VOL. REG.
RIPPLE FILTER
REFERENCE VOLTAGE
STARTER
D501 – 504 10E2 RECT
T1000 POWER TRANSFORMER
D505, 506 10E2
Q503, 504 2SD1406 VOL. REG.
D508 – 511 10E2 RECT
D507 1SS202
CANADIAN MODEL
AC OUTLET (UNSWITCHED)
AC INPUT
Q509 2SD774 VOL. REG.
Q508 DTA124ES SWITCHING
D512 10E2 RECT
D513 EQB01-07
D515 HZ18-3L
Q505 DTC124ES SWITCHING
Q506 2SC2603F
Q507 2SD774
VOL. REG.
D514 HZ33-1L
TO FL BOARD FLT601 ㊿
TO FL BOARD FLT601 ①

○ : ON MODE

MODE / MODE DET	FWD SIDE DIRECTION								REV SIDE DIRECTION							
	▶	▶▶/◀◀ →■	■	▶▶	◀◀	AMS	▶→▮▮	●/▶ →▮▮	◀	▶▶/◀◀ →■	■	▶▶	◀◀	AMS	◀→▮▮	●/◀ →▮▮
FWD DIRECTION	○	○	○	○	○	○	○	○								
PLAY STOP	○								○							
CUE STOP						○	○	○						○	○	○
CUE RETURN/STOP		○								○						
FF/REW				○	○							○	○			

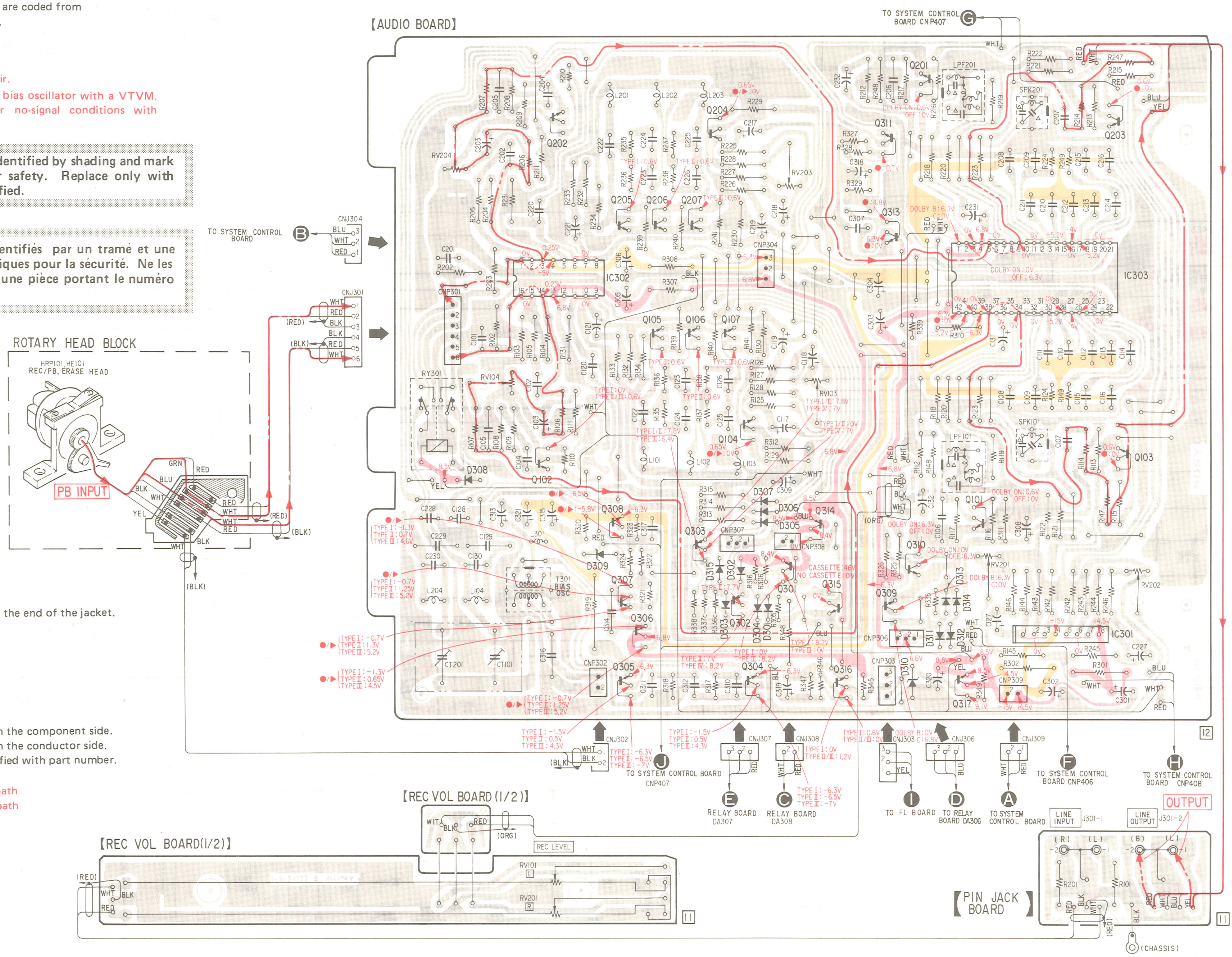
4-3. MOUNTING/SCHEMATIC DIAGRAMS – Audio System –

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- Components for right channel have same values as for left channel. Reference numbers are coded from
- △ : internal component.
- ⇨ : signal path.
- ▬ : B+ bus.
- - - - : B– bus.
- ☐ : adjustment for repair.
- AC voltage readings in the bias oscillator with a VTVM.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V).

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.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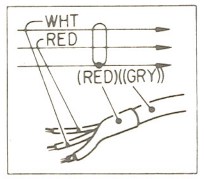
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
[AUDIO BOARD]
ROTARY HEAD BLOCK
HRP101, HE101
REC/PB, ERASE HEAD
PB INPUT
GRN
RED
BLU
BLK
WHT
YEL
TO SYSTEM CONTROL BOARD
CNJ304
CNJ301
TO SYSTEM CONTROL BOARD CNP407
IC302
IC303
IC301
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q201
Q202
Q203
Q204
Q205
Q206
Q207
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q308
Q309
Q310
Q311
Q313
Q314
Q315
Q316
Q317
RV204
RV203
RV104
RV103
RV201
RV202
RY301
LPF201
LPF101
SPK201
SPK101
T301 BIAS OSC
CT201
CT101
L201
L202
L203
L101
L102
L103
L104
L204
L301
DOLBY ON : 0V
OFF : 6.3V
CASSETTE : 4.6V
NO CASSETTE : 0V
TYPE I : –1.5V
TYPE II : 0.5V
TYPE III : 4.3V
TO SYSTEM CONTROL BOARD CNP407
RELAY BOARD DA307
RELAY BOARD DA308
TO FL BOARD
TO RELAY BOARD DA306
TO SYSTEM CONTROL BOARD
TO SYSTEM CONTROL BOARD CNP406
TO SYSTEM CONTROL BOARD CNP408
LINE INPUT
J301-1
LINE OUTPUT
J301-2
OUTPUT
[REC VOL BOARD (1/2)]
[REC VOL BOARD(1/2)]
REC LEVEL
RV101
RV201
[PIN JACK BOARD]
R201
R101
(CHASSIS)
SONY

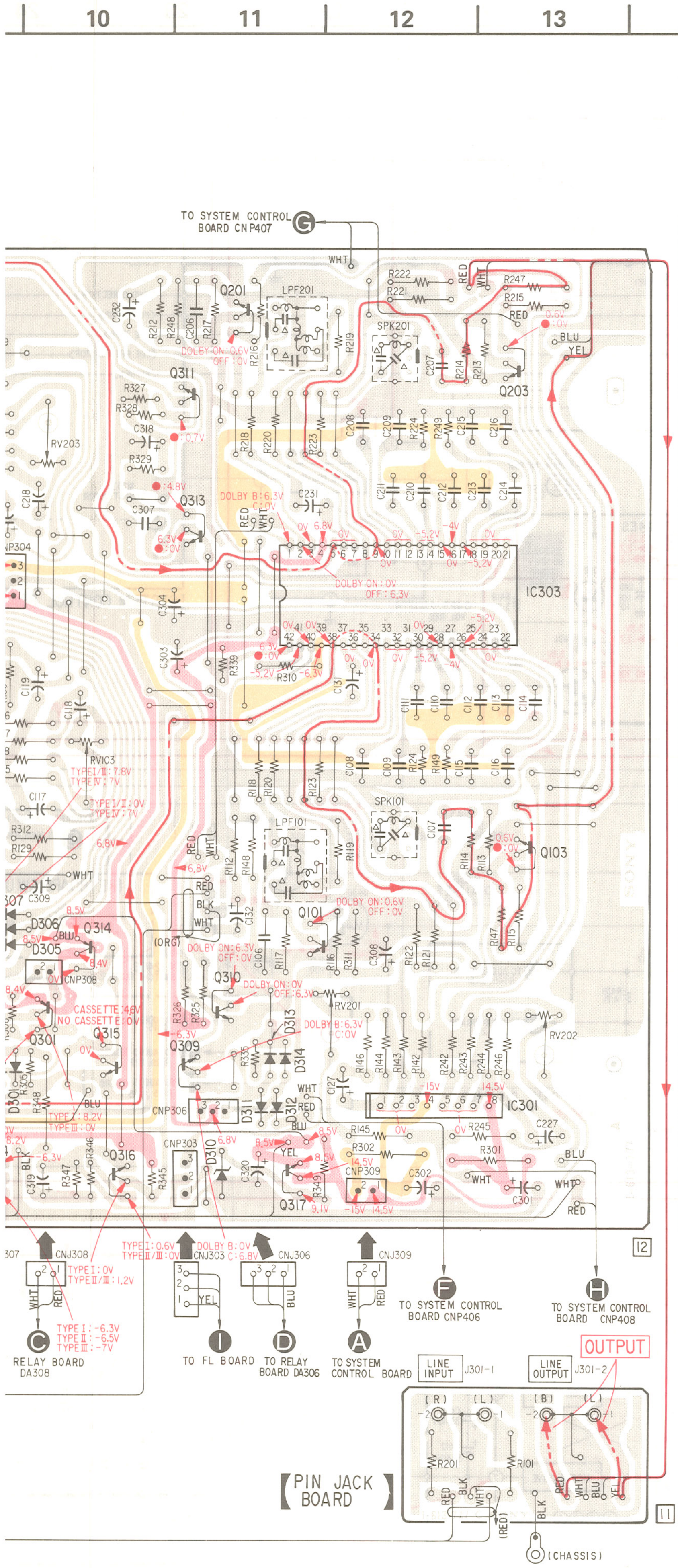
Q , IC	D
201	
202 204 203 311	
205,206,207 313	
IC302 IC303	
105,106,107	
104	
102 103	
	308
	307 306 305
308 314 101	
303	
301 310	309 315 302
307 302 315 309	303,304,301 313,314
306 IC301	311,312
305,304,316 317	310

Note on Mounting Diagram:

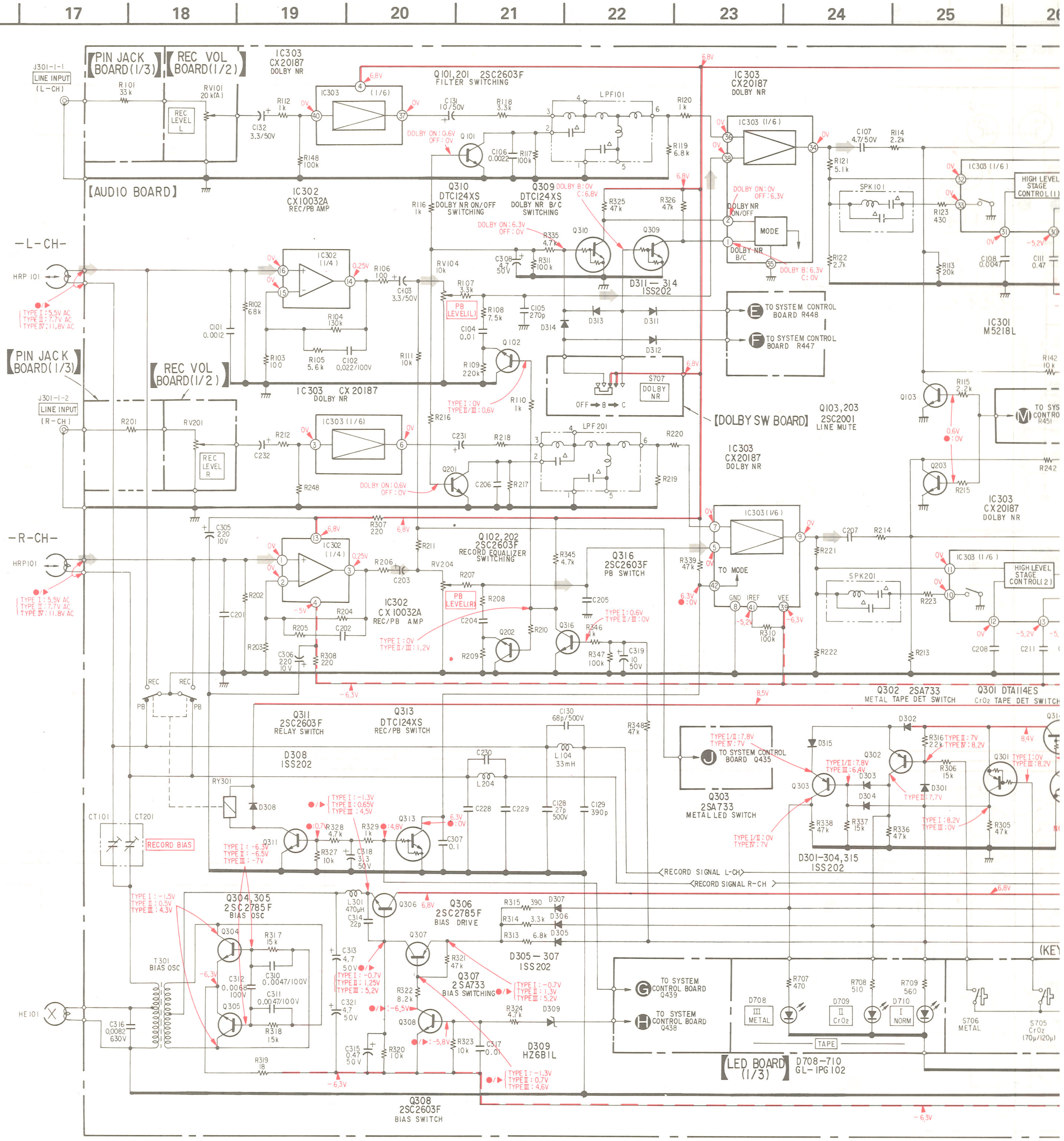
- Color code of sleeving over the end of the jacket.


WHT
RED
(RED)((GRY))

- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ⬚ : indicates side identified with part number.
- ▬▶▬ : signal path
- ▬▬▶ : L-CH signal path
- ▬▬▶ : R-CH signal path
- ▨ : B + pattern
- ▨ : B – pattern


10
11
12
13
TO SYSTEM CONTROL BOARD CNP407
G
Q201
LPF201
SPK201
Q203
Q311
RV203
Q313
IC303
DOLBY B: 6.3V C: 0V
DOLBY ON: 0V OFF: 6.3V
LPF101
SPK101
Q103
Q101
Q310
Q314
Q306
D305
CASSETTE: 4.6V NO CASSETTE: 0V
Q315
Q309
RV201
RV202
IC301
Q316
Q317
CNP306
CNP303
CNP309
CNJ308
CNJ303
CNJ306
CNJ309
TYPE I: 0.6V TYPE II/III: 0V
DOLBY B: 0V C: 6.8V
TYPE I: 0V TYPE II/III: 1.2V
TYPE I: -6.3V TYPE II: -6.5V TYPE III: -7V
C
RELAY BOARD DA308
I
TO FL BOARD
D
TO RELAY BOARD DA306
A
TO SYSTEM CONTROL BOARD
F
TO SYSTEM CONTROL BOARD CNP406
H
TO SYSTEM CONTROL BOARD CNP408
LINE INPUT J301-1
LINE OUTPUT J301-2
OUTPUT
(R) (L) (R) (L)
R201 R101
WHT RED BLK YEL BLU
(CHASSIS)
【PIN JACK BOARD】
12
11

Q , IC	D
201	
202 203	
204 311	
205,206,207 313	
IC302 IC303	
105,106,107	
104	
102 103	
	308
308 314 101	307 306 305
303	
301 310	309 315 302
307 302 315 309	303,304,301 313,314
306 IC301	311,312
305,304,316 317	310


14
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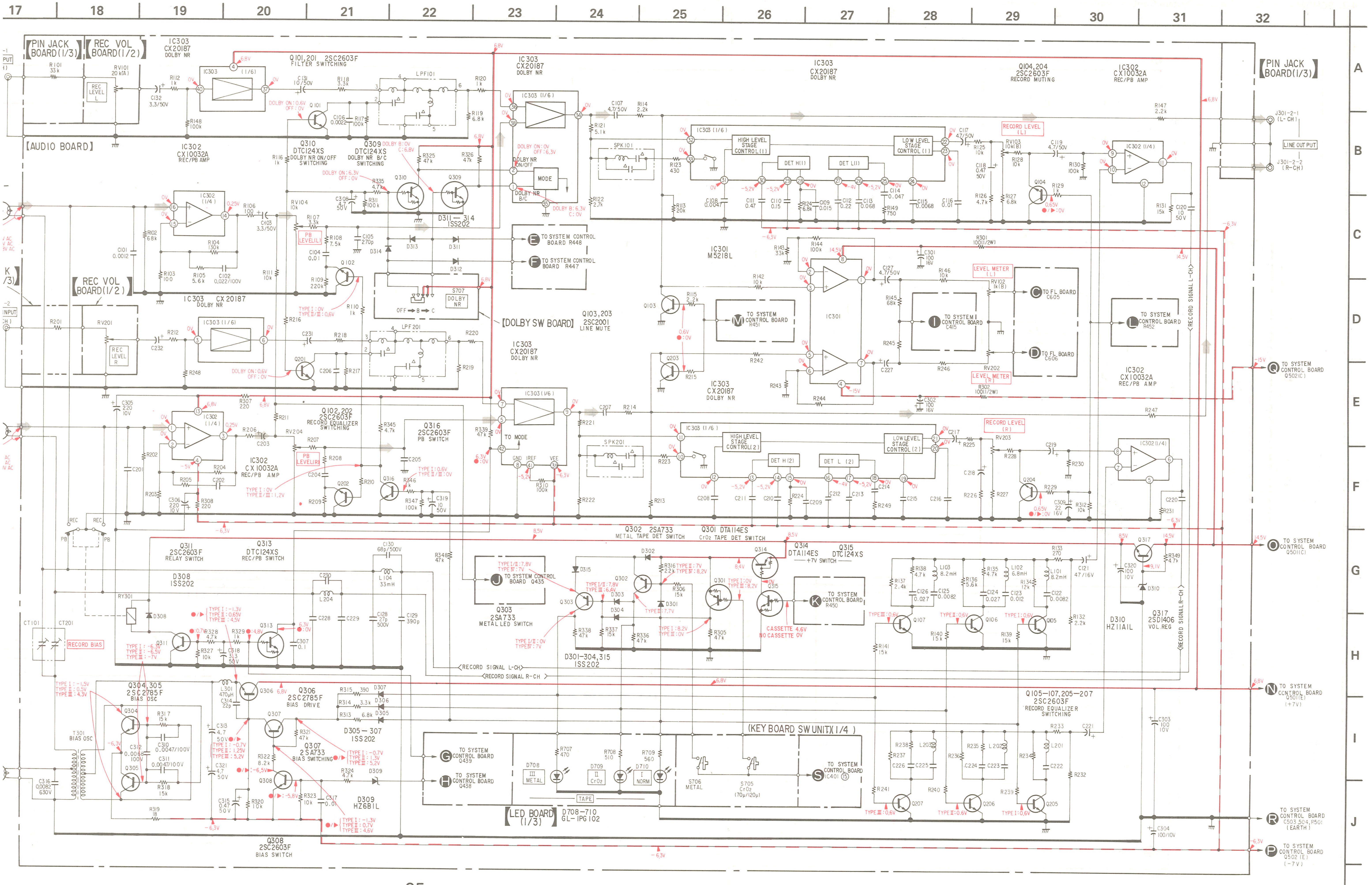
26
【PIN JACK BOARD(1/3)】
【REC VOL BOARD(1/2)】
IC303 CX20187 DOLBY NR
Q101,201 2SC2603F FILTER SWITCHING
LPF101
IC303 CX20187 DOLBY NR
J301-1-1 LINE INPUT (L-CH)
【AUDIO BOARD】
IC302 CX10032A REC/PB AMP
Q310 DTC124XS DOLBY NR ON/OFF SWITCHING
Q309 DTC124XS DOLBY NR B/C SWITCHING
-L-CH-
HRP101
TYPE I: 5.5V AC TYPE II: 7.7V AC TYPE IV: 11.8V AC
D311-314 1SS202
TO SYSTEM CONTROL BOARD R448
TO SYSTEM CONTROL BOARD R447
IC301 M5218L
S707 DOLBY NR
OFF B C
【DOLBY SW BOARD】
Q103,203 2SC2001 LINE MUTE
IC303 CX20187 DOLBY NR
J301-1-2 LINE INPUT (R-CH)
LPF201
HIGH LEVEL STAGE CONTROL
-R-CH-
HRP101
Q102,202 2SC2603F RECORD EQUALIZER SWITCHING
Q316 2SC2603F PB SWITCH
IC302 CX10032A REC/PB AMP
PB LEVEL(L)
PB LEVEL(R)
SPK101
SPK201
MODE
TO MODE
Q311 2SC2603F RELAY SWITCH
Q313 DTC124XS REC/PB SWITCH
D308 1SS202
Q303 2SA733 METAL LED SWITCH
Q302 2SA733 METAL TAPE DET SWITCH
Q301 DTA114ES CrO2 TAPE DET SWITCH
TO SYSTEM CONTROL BOARD Q435
D301-304,315 1SS202
RY301
CT101 CT201
RECORD BIAS
RECORD SIGNAL L-CH
RECORD SIGNAL R-CH
Q304,305 2SC2785F BIAS OSC
Q306 2SC2785F BIAS DRIVE
Q307 2SA733 BIAS SWITCHING
D305-307 1SS202
T301 BIAS OSC
HE101
TO SYSTEM CONTROL BOARD Q439
TO SYSTEM CONTROL BOARD Q438
D309 HZ6B1L
Q308 2SC2603F BIAS SWITCH
【LED BOARD(1/3)】
D708-710 GL-1PG102
D708 III METAL
D709 II CrO2
D710 I NORM
TAPE
S706 METAL
S705 CrO2 (70μ/120μ)
(KEY


17
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26
27
28
29
30
31
32
A
B
C
D
E
F
G
H
I
J
[PIN JACK BOARD(1/3)]
[REC VOL BOARD(1/2)]
IC303 CX20187 DOLBY NR
Q101,201 2SC2603F FILTER SWITCHING
IC303 CX20187 DOLBY NR
IC303 CX20187 DOLBY NR
Q104,204 2SC2603F RECORD MUTING
IC302 CX10032A REC/PB AMP
[PIN JACK BOARD(1/3)]
LINE OUT PUT
J301-2-1 (L-CH)
J301-2-2 (R-CH)
[AUDIO BOARD]
IC302 CX10032A REC/PB AMP
Q310 DTC124XS DOLBY NR ON/OFF SWITCHING
Q309 DTC124XS DOLBY NR B/C SWITCHING
LPF101
LPF201
HIGH LEVEL STAGE CONTROL(1)
LOW LEVEL STAGE CONTROL(1)
HIGH LEVEL STAGE CONTROL(2)
LOW LEVEL STAGE CONTROL(2)
RECORD LEVEL (L)
RECORD LEVEL (R)
DET H(1)
DET L(1)
DET H(2)
DET L (2)
SPK101
SPK201
MODE
D311-314 1SS202
TO SYSTEM CONTROL BOARD R448
TO SYSTEM CONTROL BOARD R447
[DOLBY SW BOARD]
S707 DOLBY NR
OFF B C
Q103,203 2SC2001 LINE MUTE
IC301 M5218L
LEVEL METER (L)
LEVEL METER (R)
TO FL BOARD C605
TO FL BOARD C606
TO SYSTEM CONTROL BOARD R451
TO SYSTEM CONTROL BOARD C415
TO SYSTEM CONTROL BOARD R452
TO SYSTEM CONTROL BOARD Q502(C)
TO SYSTEM CONTROL BOARD Q501(C)
[REC VOL BOARD(1/2)]
IC303 CX20187 DOLBY NR
IC302 CX10032A REC/PB AMP
IC302 CX10032A REC/PB AMP
Q102,202 2SC2603F RECORD EQUALIZER SWITCHING
Q316 2SC2603F PB SWITCH
PB LEVEL(L)
PB LEVEL(R)
TO MODE
RECORD SIGNAL L-CH
RECORD SIGNAL R-CH
Q311 2SC2603F RELAY SWITCH
Q313 DTC124XS REC/PB SWITCH
D308 1SS202
RY301
RECORD BIAS
CT101
CT201
Q302 2SA733 METAL TAPE DET SWITCH
Q301 DTA114ES CrO2 TAPE DET SWITCH
Q314 DTA114ES +7V SWITCH
Q315 DTC124XS
TO SYSTEM CONTROL BOARD Q435
Q303 2SA733 METAL LED SWITCH
TO SYSTEM CONTROL BOARD R450
CASSETTE 4.6V
NO CASSETTE 0V
D301-304,315 1SS202
D310 HZ11AIL
Q317 2SD1406 VOL REG
TO SYSTEM CONTROL BOARD Q501(E) (+7V)
Q304,305 2SC2785F BIAS OSC
T301 BIAS OSC
Q306 2SC2785F BIAS DRIVE
Q307 2SA733 BIAS SWITCHING
D305-307 1SS202
D309 HZ6B1L
Q308 2SC2603F BIAS SWITCH
TO SYSTEM CONTROL BOARD Q439
TO SYSTEM CONTROL BOARD Q438
[LED BOARD](1/3)
D708-710 GL-1PG102
D708 III METAL
D709 II CrO2
D710 I NORM
TAPE
[KEY BOARD SW UNIT](1/4)
S706 METAL
S705 CrO2 (70μ/120μ)
TO SYSTEM CONTROL BOARD IC401 ⑮
Q105-107,205-207 2SC2603F RECORD EQUALIZER SWITCHING
TO SYSTEM CONTROL BOARD C503,504,R501 (EARTH)
TO SYSTEM CONTROL BOARD Q502(E) (-7V)
RECORD SIGNAL L-CH
RECORD SIGNAL R-CH

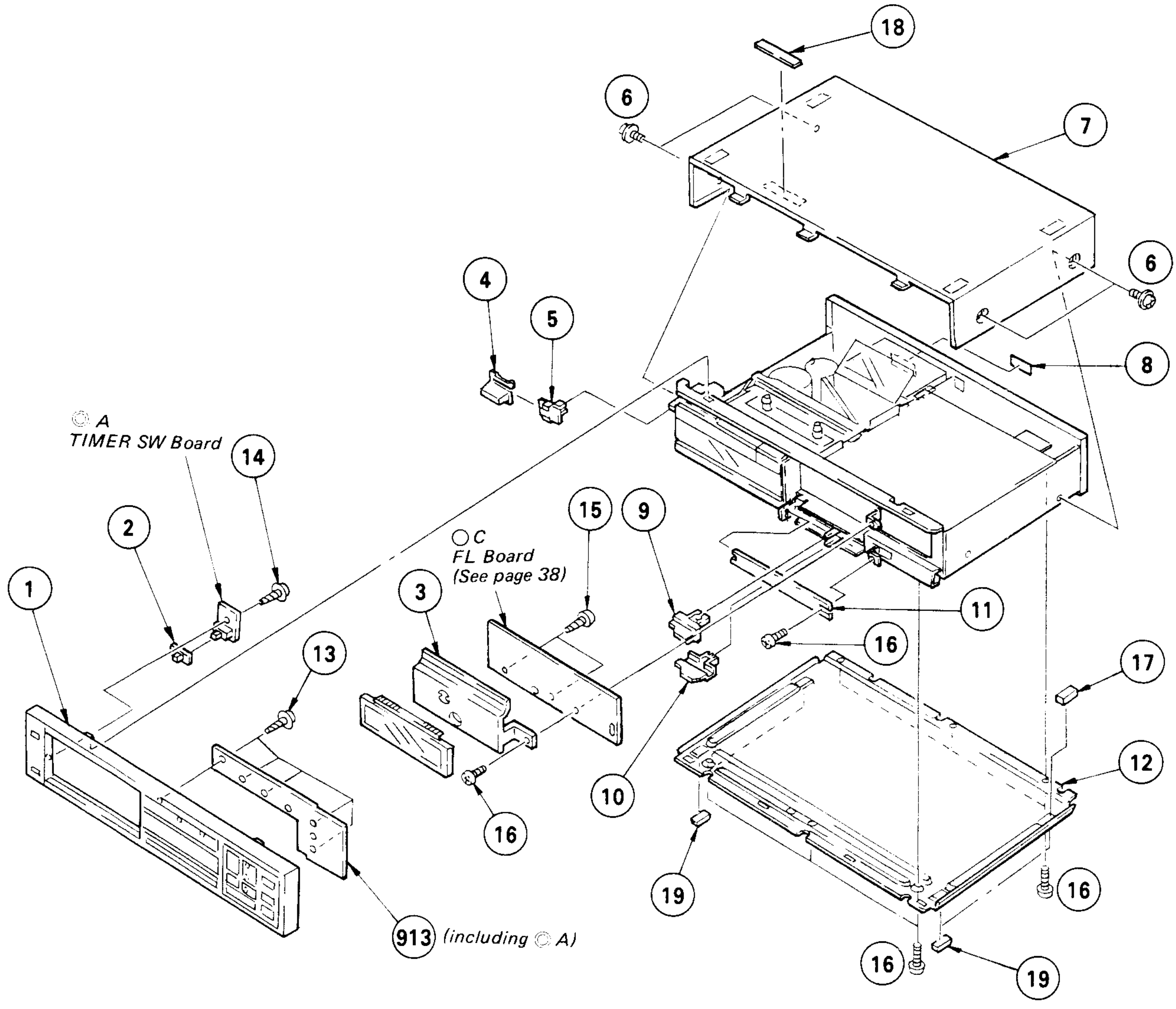
SECTION 5
EXPLODED VIEWS AND PARTS LIST

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

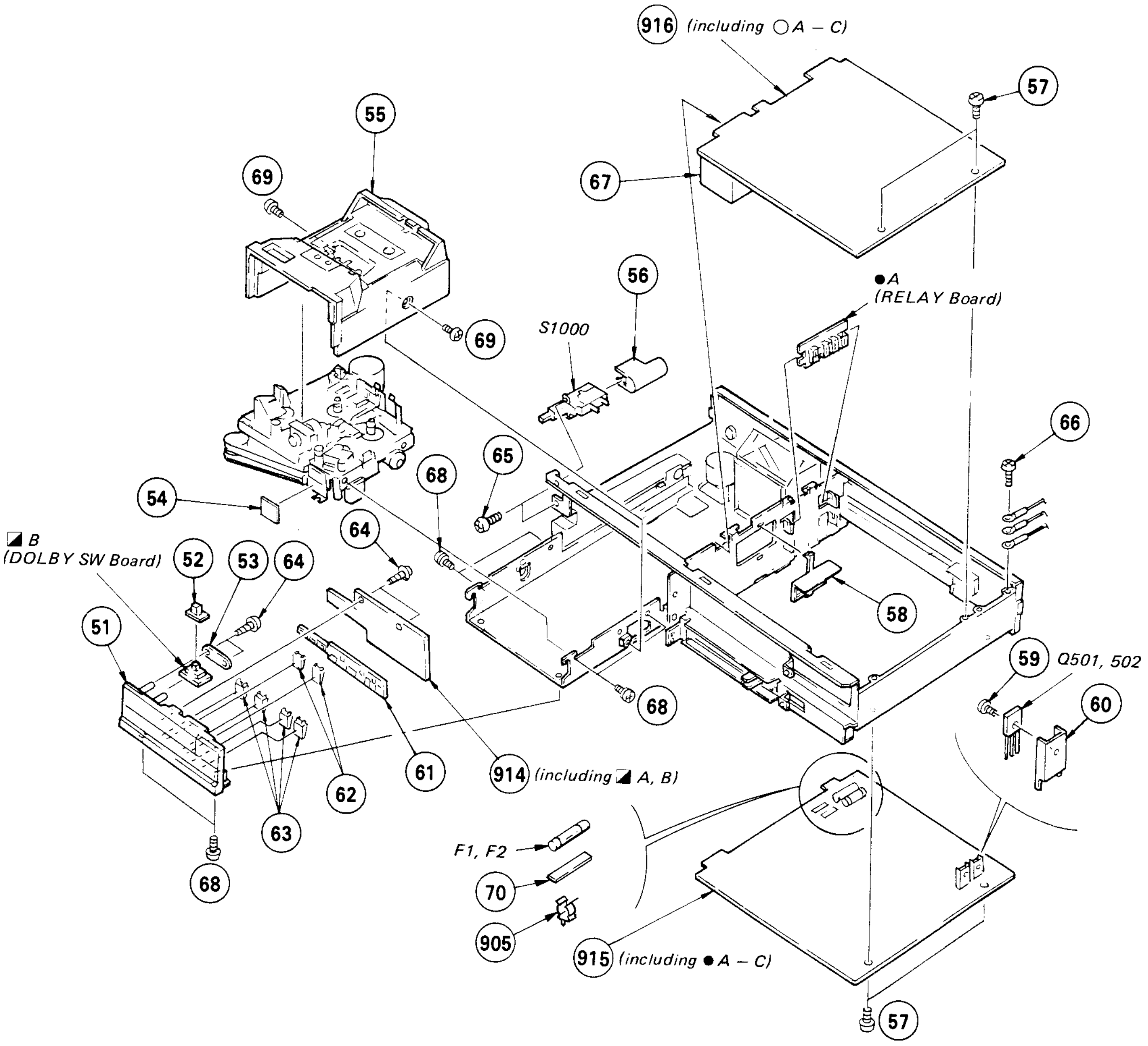
Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

(1)



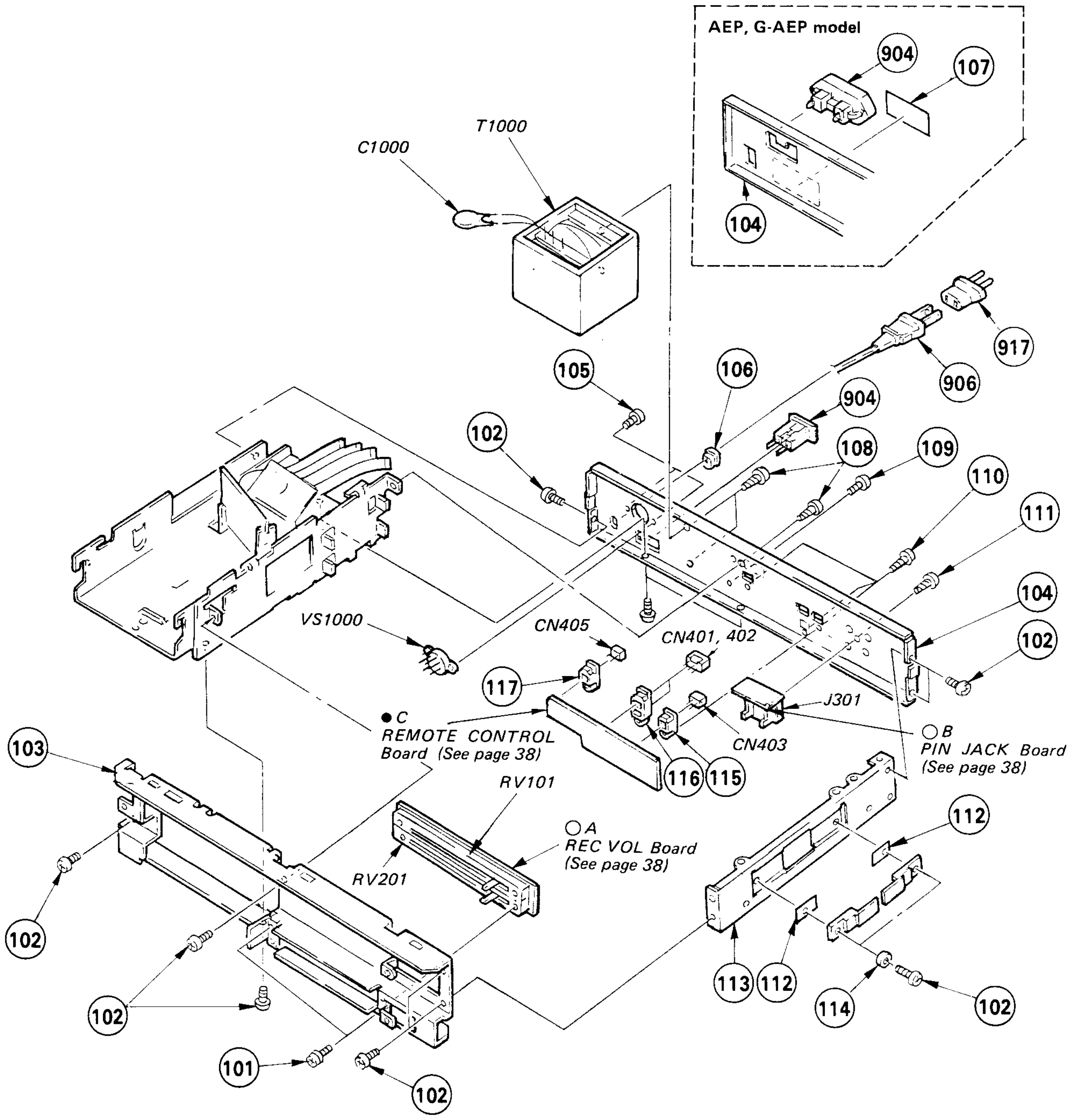
No.	Part No.	Description	REMARKS
1	X-3323-409-1	PANEL ASSY, FRONT	
2	3-323-415-01	KNOB, SWITCH TIMER	
3	*3-323-450-01	HOLDER, FL TUBE	
4	4-907-611-01	KNOB, POWER	
5	*4-875-466-00	JOINT (F2), KNOB	
6	4-886-821-01	SCREW, M3 CASE	
7	4-907-624-11	CASE	
8	*4-302-759-00	(Canadian,E)...LABEL, SERIAL NUMBER	
9	3-323-446-01	KNOB (LEFT), CONTROL	
10	3-323-447-01	KNOB (RIGHT), CONTROL	
11	3-323-434-01	PLATE, ORNAMENTAL, CONTROL	
12	*3-323-422-01	PLATE, BOTTOM	
13	7-687-204-11	TOTSU PTPWH 2X6 NON-SLIT, TYPE2	
14	7-687-233-11	SCREW, TOTSU PTPWH 2.6X6, TYPE2	
15	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
16	7-685-871-01	SCREW +BVTT 3X6 (S)	
17	*3-323-474-01	CUSHION, RUBBER	
18	3-323-480-01	LABEL, CAUTION, DROWER	
19	3-323-476-01	FOOT	
913	*1-613-779-11	PC BOARD, SW	

(2)


916 (including ○A – C)
57
55
69
67
56
●A (RELAY Board)
S1000
69
66
65
68
54
64
◪B (DOLBY SW Board)
52
53
64
58
51
59
Q501, 502
60
68
61
914 (including ◪ A, B)
62
63
F1, F2
70
905
915 (including ● A – C)
68
57

No.	Part No.	Description	REMARKS
51	X-3323-408-1	PANEL ASSY	
52	3-323-415-01	KNOB, SWITCH TIMER	
53	3-323-443-01	STOPPER (B)	
54	3-323-471-01	PLATE (A), INSULATING	
55	X-3323-407-1	COVER ASSY, MD	
56	3-575-524-00	COVER, POWER SWITCH	
57	3-703-249-01	SCREW, S TIGHT, +PTTWH 3X6	
58	*3-323-448-01	GUIDE, CONNECTOR	
59	2-259-121-00	SCREW, TR	
60	*3-312-615-11	HEAT SINK	
61	3-323-445-01	HOLDER, LED	
62	3-323-457-11	PRISM	
63	3-323-457-01	PRISM	
64	7-687-233-11	SCREW, TOTSU PTPWH 2.6X6, TYPE2	
65	7-682-642-01	SCREW +PS 3X5 (S)	
66	7-685-871-01	SCREW +BVTT 3X6 (S)	
67	*3-323-444-01	CASE, SHIELD	
68	7-682-145-09	SCREW, +P 3X4	
69	7-682-546-09	SCREW, +B 3X5	
70	*3-701-948-16	LABEL, FUSE	
905	1-533-162-00	HOLDER, FUSE	
911	*1-613-777-11	PC BOARD, AUDIO/FL	
912	*1-613-778-11	PC BOARD, SYSTEM CONTROL	
914	*1-613-780-11	PC BOARD, LED	
915	*A-2056-259-A	(AEP,G-AEP,E)...PC BOARD ASSY, SYSTEM CONTROL	
	*A-2056-272-A	(Canadian)......PC BOARD ASSY, SYSTEM CONTROL	
916	*A-2056-258-A	PC BOARD ASSY, AUDIO/FL	

(3)


AEP, G-AEP model
904
107
104
T1000
C1000
105
106
917
906
904
102
108
109
110
111
104
102
VS1000
CN405
CN401, 402
117
J301
●C
REMOTE CONTROL
Board (See page 38)
CN403
○B
PIN JACK Board
(See page 38)
116
115
103
RV101
○A
REC VOL Board
(See page 38)
112
RV201
102
113
112
114
102
102
101
102

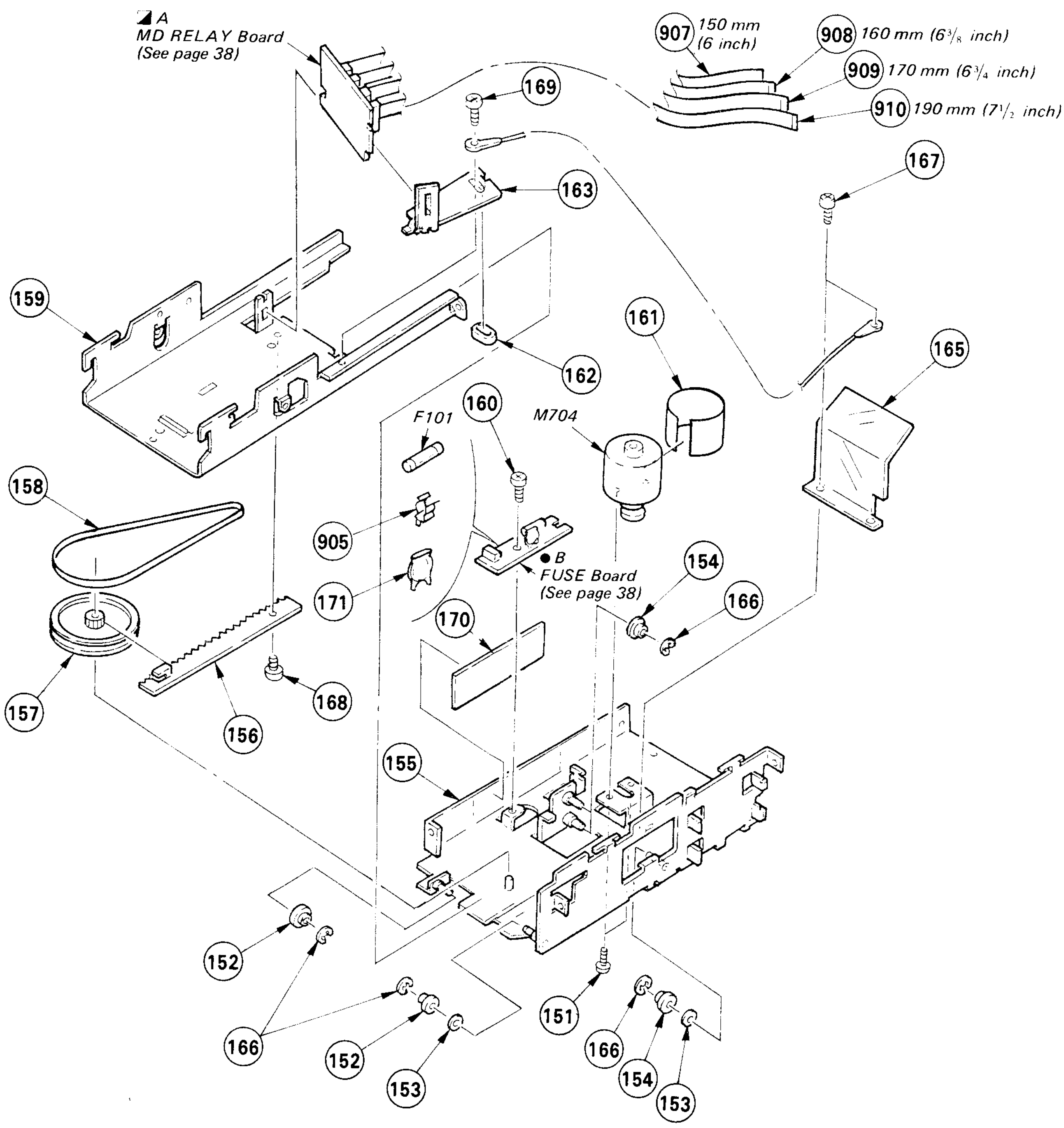
No.	Part No.	Description	REMARKS
101	7-628-254-05	SCREW +PS 2.6X5	
102	7-685-871-01	SCREW +BVTT 3X6 (S)	
103	*3-323-451-01	CHASSIS, FRONT	
104	*3-323-452-23	(E)...........PLATE, JACK	
	*3-323-452-33	(AEP,G-AEP)...PLATE, JACK	
	*3-323-452-13	(Canadian)....PLATE, JACK	
105	7-682-547-09	SCREW +B 3X6	
106	3-703-244-00	BUSHING (2104), CORD	
107	*3-323-482-01	(G-AEP)...LABEL, MODEL NUMBER (AE4)	
	*3-323-481-01	(AEP).....LABEL, MODEL NUMBER (AE1)	
108	7-682-147-01	SCREW +P 3X6	
109	3-323-470-01	SCREW (B3X6), (+ -)	
110	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
111	7-685-146-19	SCREW +BTP 3X8 TYPE2 N-S	

No.	Part No.	Description	REMARKS
112	3-703-037-00	INSULATOR, TO-220	
113	*3-323-449-01	PLATE (RIGHT)	
114	2-371-561-00	BUSHING (P), INSULATING	
115	*3-322-819-01	HOLDER, CONNECTOR	
116	*3-322-818-01	HOLDER, CONNECTOR	
117	*3-323-401-01	HOLDER (2 PIN), CONNECTOR	
904	⚠.1-526-774-11	(E)...........OUTLET, AC	
	⚠.1-526-794-11	(AEP,G-AEP)...OUTLET, AC	
	⚠.1-526-882-00	(Canadian)....OUTLET, AC	
906	⚠.1-551-427-11	(AEP,G-AEP)...CORD, POWER, EULO PLUG	
	⚠.1-551-472-00	(E)...........CORD, POWER	
	⚠.1-557-579-11	(Canadian)....CORD, POWER	
917	⚠.1-526-565-00	(E3)....AC PLUG ADAPTOR	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

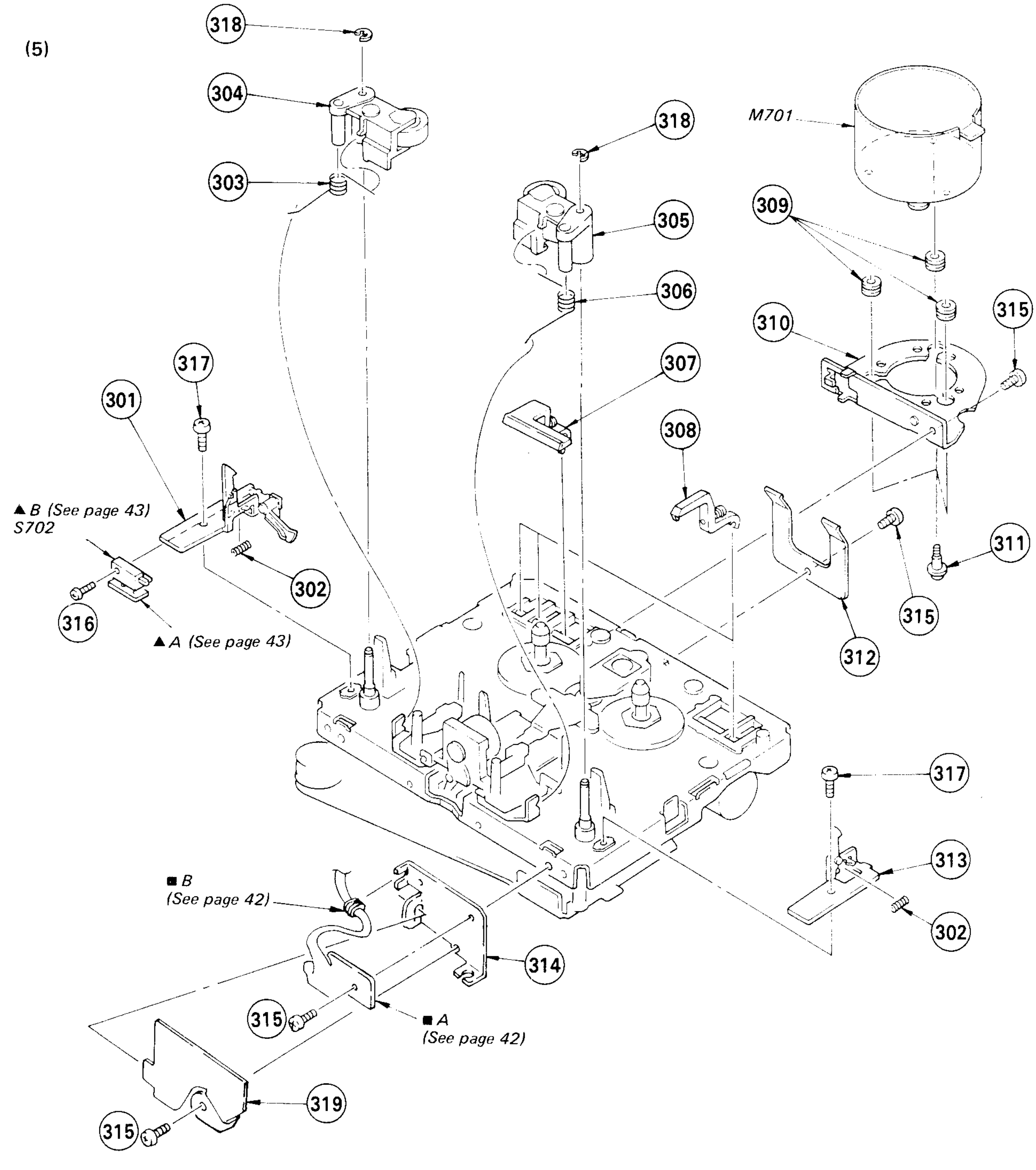
Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

(4)


A
MD RELAY Board
(See page 38)
907 150 mm (6 inch)
908 160 mm (6 3/8 inch)
909 170 mm (6 3/4 inch)
910 190 mm (7 1/2 inch)
169
163
167
159
161
165
162
160
F101
M704
158
905
● B
FUSE Board
(See page 38)
154
166
171
170
157
168
156
155
152
166
151
166
152
153
154
153

No.	Part No.	Description	REMARKS
151	7-628-254-05	SCREW +PS 2.6X5	
152	3-323-469-01	ROLLER (B)	
153	3-701-437-11	WASHER	
154	3-323-436-01	ROLLER	
155	*X-3323-405-1	CHASSIS (L) ASSY	
156	3-323-438-01	RACK	
157	3-323-458-01	GEAR, LOADING	
158	3-642-545-00	BELT, COUNTER	
159	*3-323-453-01	HOLDER, MD	
160	3-703-249-01	SCREW, S TIGHT, +PTTWH 3X6	
161	3-575-457-00	PLATE (B), SHIELD, MOTOR	
162	3-537-790-11	SUPPORT, TENSION ARM	
163	*3-323-428-01	STOPPER (A)	
165	*3-323-464-01	INSULATOR	
166	7-624-102-04	STOP RING 1.5, TYPE -E	
167	7-685-870-01	SCREW, +BVTT 3X5 (S)	
168	7-682-546-09	SCREW, +B 3X5	
169	7-685-871-01	SCREW +BVTT 3X6 (S)	
170	9-911-863-XX	INSULATOR	
171	4-875-455-01	(AEP,G-AEP,E)..COVER (DIA.20), CAPACITOR	
905	1-533-162-00	HOLDER, FUSE	
907	1-557-648-11	CORD, PVC (FLAT TYPE)(10 CORE)	
908	1-557-648-21	CORD, PVC (FLAT TYPE)(10 CORE)	
909	1-557-648-31	CORD, PVC (FLAT TYPE)(10 CORE)	
910	1-557-648-41	CORD, PVC (FLAT TYPE)(10 CORE)	

(5)


318
304
303
318
M701
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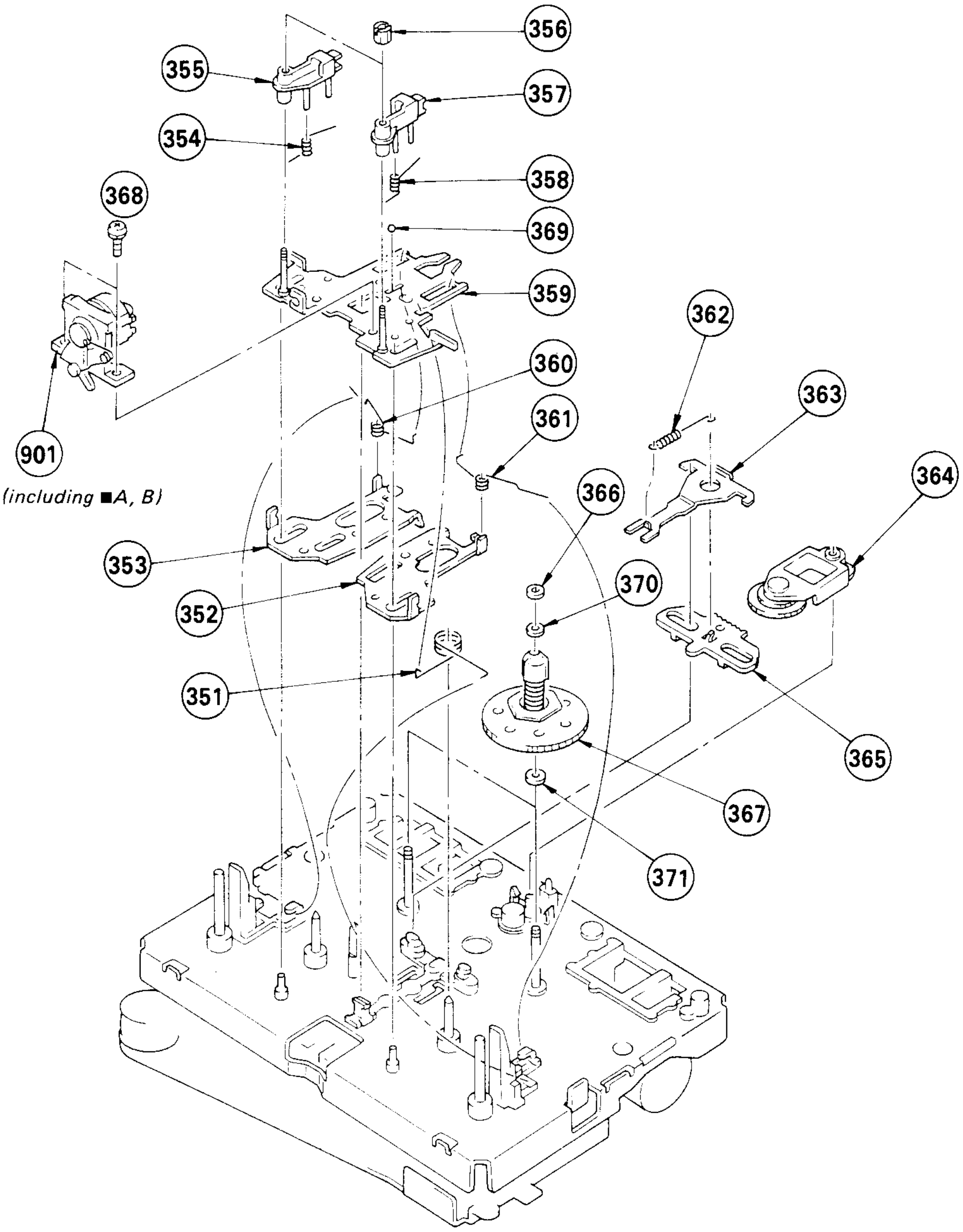
309
306
310
315
317
301
307
308
▲B (See page 43)
S702
302
311
316
▲A (See page 43)
315
312
317
■B
(See page 42)
313
302
314
315
■A
(See page 42)
319
315

No.	Part No.	Description	REMARKS
301	X-3595-406-1	LEVER ASSY, LOCK	
302	3-595-417-01	HOLD (SP)	
303	3-595-408-01	SPRING (LEFT)	
304	X-3595-402-1	PINCH ROLLER ASSY (LEFT)	
305	X-3595-403-1	PINCH ROLLER ASSY (RIGHT)	
306	3-595-409-01	SPRING (RIGHT)	
307	X-3595-408-1	DETECTION ASSY, METAL	
308	X-3595-409-1	DETECTION ASSY, REC	
309	3-595-432-01	MOTOR, CUSHION	
310	*3-595-433-01	BKT (B), MOTOR	
311	3-595-434-01	SCREW, COLLAR	
312	3-595-435-01	SPRING	
313	X-3595-405-1	LEVER ASSY, LOCK	
314	*3-595-401-01	HOLDER, LEAD	
315	7-682-146-01	SCREW +P 3X5	
316	7-621-255-45	SCREW +P 2X6	
317	7-682-547-04	SCREW +P 3X6	
318	7-624-104-04	STOP RING 2.0, TYPE -E	
319	*3-595-442-01	PLATE, SHIELD	

(6)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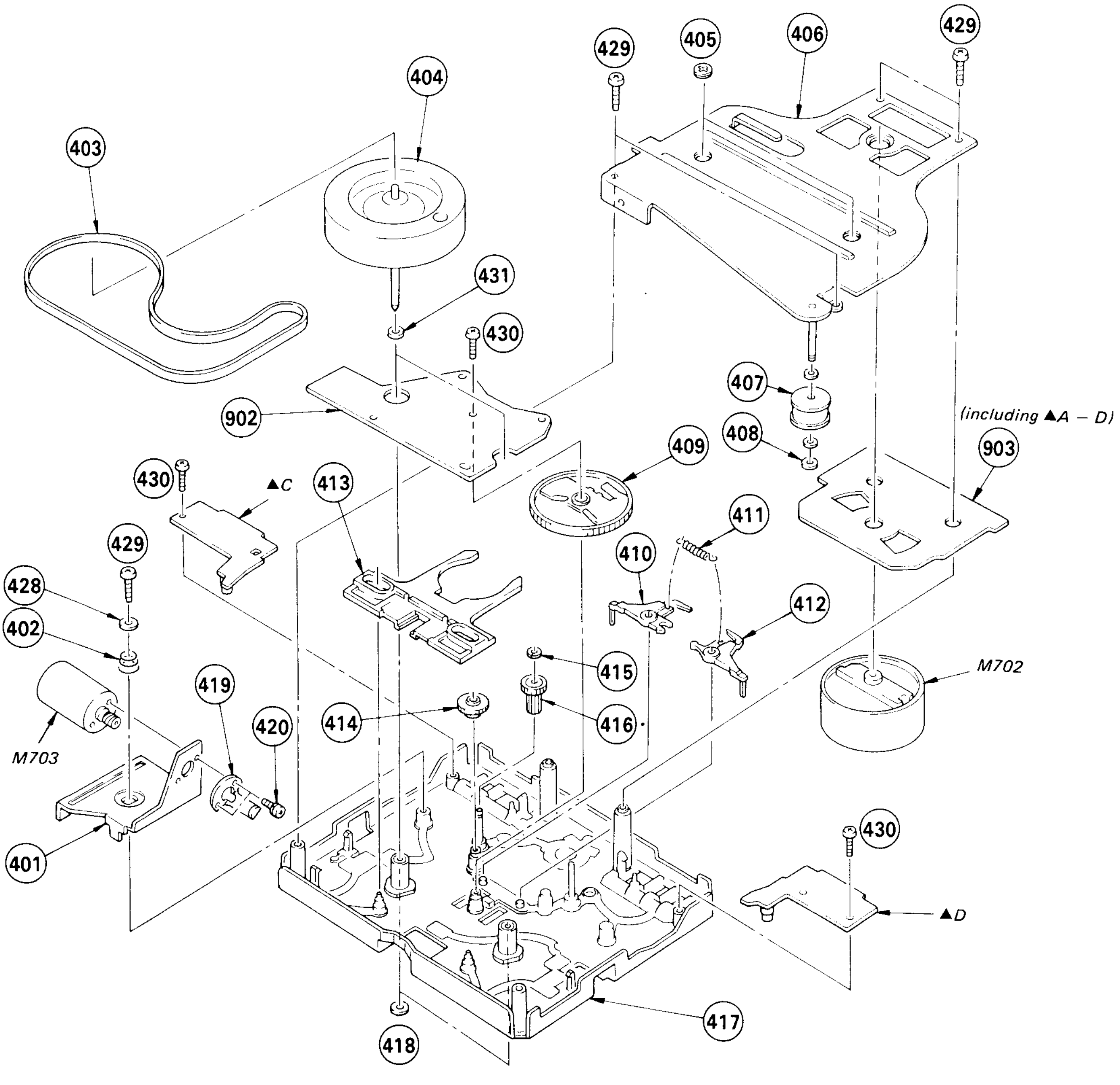
371

(including ■A, B)

No.	Part No.	Description	REMARKS
351	3-595-420-01	SPRING	
352	*3-595-414-01	BASE (RIGHT), SLIDE	
353	*3-595-413-01	BASE (LEFT), SLIDE	
354	3-595-405-01	SPRING (LEFT)	
355	3-595-403-01	HOLDER, SENSOR	
356	3-595-402-01	NUT, ADJUSTMENT	
357	3-595-404-01	GUIDE, TAPE	
358	3-595-406-01	SPRING (RIGHT)	
359	3-595-407-01	PREPARATION, HEAD, PLATE	
360	3-595-415-01	SPRING (LEFT)	
361	3-595-416-01	SPRING (RIGHT)	
362	3-595-410-01	SLIDE (SP), CR	

No.	Part No.	Description	REMARKS
363	*3-595-411-01	SPRING	
364	X-3595-404-1	IDLER ASSY	
365	3-595-412-01	PLATE, SLIDE, C/R	
366	3-595-418-01	WASHER	
367	X-3595-407-1	REEL ASSY, TAKE-UP	
368	7-628-253-15	SCREW +PS 2X5	
369	7-671-151-01	STAINLESS, BALL 1/16INCH	
370	3-701-438-11	WASHER, 2.5	
371	3-701-437-11	WASHER	
901	X-3595-401-1	HEAD ASSY, ROTARY	HRP101,HE101

(7)


429
405
406
429
404
403
431
430
407
902
(including ▲A – D)
408
903
409
430
▲C
413
411
429
410
428
412
402
415
M702
419
414
416
420
M703
430
401
▲D
417
418

No.	Part No.	Description	REMARKS
401	*3-595-422-01	BKT (R), ASSIST MOTOR	
402	3-595-424-01	SPRING	
403	3-595-436-01	BELT	
404	X-3595-414-1	F/W FHR ASSY	
405	3-595-440-01	SCREW, WHEEL	
406	*3-595-439-01	PREPARATION, F/W BKT	
407	*3-595-438-01	PULLEY, MIDWAY	
408	3-595-437-01	LOCK, WASHER	
409	X-3595-411-1	GEAR ASSY	
410	3-595-429-01	LEVER (RIGHT), BRAKE	
411	3-595-431-01	BRAKE (SP)	
412	3-595-430-01	LEVER (LEFT), BRAKE	
413	3-595-425-01	SLIDE, SELECTION	
414	3-595-426-01	GEAR, IDLE	
415	3-595-428-01	WASHER	
416	3-595-427-01	GEAR, WORM	
417	3-595-421-01	PREPARATION, CHASSIS	
418	3-595-419-01	SEAL, OIL, WASHER	
419	3-595-423-01	SPRING	
420	3-595-441-01	SCREW, WASHER	
428	7-688-003-11	W 3, MIDDLE	
429	7-685-134-14	SCREW +P 2.6X8 TYPE2 NON-SLIT	
430	7-685-104-14	SCREW +P 2X6 TYPE2 NON-SLIT	
431	3-701-438-11	WASHER, 2.5	
902	1-464-410-11	CIRCUIT UNIT, DETECTION	
903	*1-464-411-11	SWITCH UNIT, KEY BOARD	

SECTION 6

ELECTRICAL PARTS LIST

NOTE:

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	X-3595-401-1	HEAD ASSY, ROTARY			
902	1-464-410-11	CIRCUIT UNIT, DETECTION			
903	*1-464-411-11	SWITCH UNIT, KEY BOARD			
904	⚠.1-526-882-00	(Canadian)....OUTLET, AC			
	⚠.1-526-774-11	(E)...........OUTLET, AC			
	⚠.1-526-794-11	(AEP,G-AEP)...OUTLET, AC			
905	1-533-162-00	HOLDER, FUSE			
906	⚠.1-557-579-11	(Canadian)....CORD, POWER			
	⚠.1-551-472-00	(E)...........CORD, POWER			
	⚠.1-551-472-11	(AEP,G-AEP)...CORD, POWER, EULO PLUG			
907	1-557-648-11	CORD, PVC (FLAT TYPE)(10 CORE)			
908	1-557-648-21	CORD, PVC (FLAT TYPE)(10 CORE)			
909	1-557-648-31	CORD, PVC (FLAT TYPE)(10 CORE)			
910	1-557-648-41	CORD, PVC (FLAT TYPE)(10 CORE)			
911	*1-613-777-11	PC BOARD, AUDIO/FL			
912	*1-613-778-11	PC BOARD, SYSTEM CONTROL			
913	*1-613-779-11	PC BOARD, SW			
914	*1-613-780-11	PC BOARD, LED			
915	*A-2056-259-A	(AEP,G-AEP,E)...PC BOARD ASSY, SYSTEM CONTROL			
	*A-2056-272-A	(Canadian)......PC BOARD ASSY, SYSTEM CONTROL			
916	*A-2056-258-A	PC BOARD ASSY, AUDIO/FL			
917	⚠.1-526-565-00	(E).....AC PLUG ADAPTOR			
918	*1-535-139-00	(AEP,G-AEP,E)...BASE POST 22MM (10MM PITCH) 2P			
919	1-535-416-00	(AEP,G-AEP,E)...TERMINAL			
C101	1-110-196-00	MYLAR	0.0012MF	5%	50V
C102	1-130-305-00	FILM	0.022MF	5%	100V
C103	1-123-382-00	ELECT	3.3MF	20%	50V
C104	1-136-153-00	FILM	0.01MF	5%	50V
C105	1-161-316-00	CERAMIC	270PF	10%	50V
C106	1-161-375-00	CERAMIC	0.0022MF	20%	50V
C107	1-124-185-00	ELECT	4.7MF	20%	50V
C108	1-110-203-00	MYLAR	0.0047MF	5%	50V
C109	1-136-155-00	FILM	0.015MF	5%	50V
C110	1-136-167-00	FILM	0.15MF	5%	50V
C111	1-136-173-00	FILM	0.47MF	5%	50V
C112	1-136-169-00	FILM	0.22MF	5%	50V
C113	1-136-163-00	FILM	0.068MF	5%	50V
C114	1-136-161-00	FILM	0.047MF	5%	50V
C115	1-110-205-00	MYLAR	0.0068MF	5%	50V
C116	1-136-153-00	FILM	0.01MF	5%	50V
C117	1-123-369-00	ELECT	4.7MF	20%	50V
C118	1-123-379-00	ELECT	0.47MF	20%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C119	1-123-369-00	ELECT	4.7MF	20%	50V
C120	1-124-186-00	ELECT	10MF	20%	50V
C121	1-123-332-00	ELECT	47MF	20%	16V
C122	1-110-206-00	MYLAR	0.0082MF	5%	50V
C123	1-136-154-00	FILM	0.012MF	5%	50V
C124	1-136-158-00	FILM	0.027MF	5%	50V
C125	1-110-206-00	MYLAR	0.0082MF	5%	50V
C126	1-136-158-00	FILM	0.027MF	5%	50V
C127	1-123-369-00	ELECT	4.7MF	20%	50V
C128	1-107-157-00	MICA	27PF	5%	500V
C129	1-161-318-00	CERAMIC	390PF	10%	50V
C130	1-107-036-00	MICA	68PF	5%	500V
C131	1-123-356-00	ELECT	10MF	20%	50V
C132	1-123-382-00	ELECT	3.3MF	20%	50V
C201	1-110-196-00	MYLAR	0.0012MF	5%	50V
C202	1-130-305-00	FILM	0.022MF	5%	100V
C203	1-123-382-00	ELECT	3.3MF	20%	50V
C204	1-136-153-00	FILM	0.01MF	5%	50V
C205	1-161-316-00	CERAMIC	270PF	10%	50V
C206	1-161-375-00	CERAMIC	0.0022MF	20%	50V
C207	1-124-185-00	ELECT	4.7MF	20%	50V
C208	1-110-203-00	MYLAR	0.0047MF	5%	50V
C209	1-136-155-00	FILM	0.015MF	5%	50V
C210	1-136-167-00	FILM	0.15MF	5%	50V
C211	1-136-173-00	FILM	0.47MF	5%	50V
C212	1-136-169-00	FILM	0.22MF	5%	50V
C213	1-136-163-00	FILM	0.068MF	5%	50V
C214	1-136-161-00	FILM	0.047MF	5%	50V
C215	1-110-205-00	MYLAR	0.0068MF	5%	50V
C216	1-136-153-00	FILM	0.01MF	5%	50V
C217	1-123-369-00	ELECT	4.7MF	20%	50V
C218	1-123-379-00	ELECT	0.47MF	20%	50V
C219	1-123-369-00	ELECT	4.7MF	20%	50V
C220	1-124-186-00	ELECT	10MF	20%	50V
C221	1-123-332-00	ELECT	47MF	20%	16V
C222	1-110-206-00	MYLAR	0.0082MF	5%	50V
C223	1-136-154-00	FILM	0.012MF	5%	50V
C224	1-136-158-00	FILM	0.027MF	5%	50V
C225	1-110-206-00	MYLAR	0.0082MF	5%	50V
C226	1-136-158-00	FILM	0.027MF	5%	50V
C227	1-123-369-00	ELECT	4.7MF	20%	50V
C228	1-107-157-00	MICA	27PF	5%	500V
C229	1-161-318-00	CERAMIC	390PF	10%	50V
C230	1-107-036-00	MICA	68PF	5%	500V
C231	1-123-356-00	ELECT	10MF	20%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C232	1-123-382-00	ELECT	3.3MF	20%	50V
C301	1-123-333-00	ELECT	100MF	20%	16V
C302	1-123-333-00	ELECT	100MF	20%	16V
C303	1-123-307-00	ELECT	100MF	20%	10V
C304	1-123-307-00	ELECT	100MF	20%	10V
C305	1-123-308-00	ELECT	220MF	20%	10V
C306	1-123-308-00	ELECT	220MF	20%	10V
C307	1-136-165-00	FILM	0.1MF	5%	50V
C308	1-123-369-00	ELECT	4.7MF	20%	50V
C309	1-123-330-00	ELECT	22MF	20%	16V
C310	1-130-289-00	FILM	0.0047MF	5%	100V
C311	1-130-289-00	FILM	0.0047MF	5%	100V
C312	1-130-293-00	FILM	0.0068MF	5%	100V
C313	1-123-369-00	ELECT	4.7MF	20%	50V
C314	1-102-959-00	CERAMIC	22PF	5%	50V
C315	1-123-379-00	ELECT	0.47MF	20%	50V
C316	1-129-713-00	FILM	0.0082MF	10%	630V
C317	1-136-153-00	FILM	0.01MF	5%	50V
C318	1-123-382-00	ELECT	3.3MF	20%	50V
C319	1-123-356-00	ELECT	10MF	20%	50V
C320	1-123-307-00	ELECT	100MF	20%	10V
C321	1-123-369-00	ELECT	4.7MF	20%	50V
C401	1-123-318-00	ELECT	33MF	20%	10V
C402	1-123-318-00	ELECT	33MF	20%	10V
C403	1-123-307-00	ELECT	100MF	20%	10V
C404	1-123-307-00	ELECT	100MF	20%	10V
C405	1-123-307-00	ELECT	100MF	20%	10V
C406	1-123-307-00	ELECT	100MF	20%	10V
C407	1-123-307-00	ELECT	100MF	20%	10V
C408	1-162-029-00	CERAMIC	47PF	5%	50V
C409	1-162-029-00	CERAMIC	47PF	5%	50V
C410	1-123-380-00	ELECT	1MF	20%	50V
C411	1-123-318-00	ELECT	33MF	20%	10V
C412	1-123-318-00	ELECT	33MF	20%	10V
C413	1-136-165-00	FILM	0.1MF	5%	50V
C414	1-136-161-00	FILM	0.047MF	5%	50V
C415	1-136-161-00	FILM	0.047MF	5%	50V
C416	1-123-380-00	ELECT	1MF	20%	50V
C417	1-123-307-00	ELECT	100MF	20%	10V
C418	1-123-299-00	ELECT	1000MF	20%	6.3V
C419	1-161-313-00	CERAMIC	150PF	10%	50V
C420	1-161-313-00	CERAMIC	150PF	10%	50V
C421	1-161-326-00	CERAMIC	0.0022MF	30%	50V
C422	1-123-307-00	ELECT	100MF	20%	10V
C423	1-161-319-00	CERAMIC	470PF	10%	50V
C424	1-161-319-00	CERAMIC	470PF	10%	50V
C425	1-161-319-00	CERAMIC	470PF	10%	50V
C426	1-161-319-00	CERAMIC	470PF	10%	50V
C427	1-123-380-00	ELECT	1MF	20%	50V
C428	1-161-494-00	CERAMIC	0.022MF	30%	25V
C429	1-123-356-00	ELECT	10MF	20%	50V
C431	1-161-049-00	CERAMIC	0.0068MF	20%	25V
C432	1-161-379-00	CERAMIC	0.01MF	20%	25V
C501	1-123-337-00	ELECT	1000MF	20%	25V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C502	1-123-337-00	ELECT	1000MF	20%	25V
C503	1-123-306-00	ELECT	47MF	20%	10V
C504	1-123-321-00	ELECT	220MF	20%	16V
C505	1-123-321-00	ELECT	220MF	20%	16V
C506	1-123-306-00	ELECT	47MF	20%	10V
C507	1-123-369-00	ELECT	4.7MF	20%	50V
C508	1-123-381-00	ELECT	2.2MF	20%	50V
C509	1-123-324-00	ELECT	1000MF	20%	16V
C510	1-123-336-00	ELECT	470MF	20%	25V
C511	1-123-307-00	ELECT	100MF	20%	10V
C512	1-123-333-00	ELECT	100MF	20%	16V
C513	1-123-359-00	ELECT	47MF	20%	50V
C514	1-123-356-00	ELECT	10MF	20%	50V
C515	1-123-357-00	ELECT	22MF	20%	50V
C516	1-123-356-00	ELECT	10MF	20%	50V
C517	1-123-332-00	ELECT	47MF	20%	25V
C518	1-123-314-00	ELECT	4700MF	20%	10V
C601	1-136-159-00	FILM	0.033MF	5%	50V
C602	1-123-356-00	ELECT	10MF	20%	50V
C603	1-123-356-00	ELECT	10MF	20%	50V
C604	1-123-356-00	ELECT	10MF	20%	50V
C605	1-123-381-00	ELECT	2.2MF	20%	50V
C606	1-123-381-00	ELECT	2.2MF	20%	50V
C1000⚠	1-161-744-00	CAP, CERAMIC	10000PF	FZ	400V
CN1	1-562-634-11	SOCKET, CONNECTOR			
CN2	1-562-634-11	SOCKET, CONNECTOR			
CN3	1-562-634-11	SOCKET, CONNECTOR			
CN4	1-562-634-11	SOCKET, CONNECTOR			
CN11	1-562-634-11	SOCKET, CONNECTOR			
CN22	1-562-634-11	SOCKET, CONNECTOR			
CN33	1-562-634-11	SOCKET, CONNECTOR			
CN44	1-562-634-11	SOCKET, CONNECTOR			
CN401	*1-560-039-00	PIN, CONNECTOR			
CN402	*1-560-039-00	PIN, CONNECTOR			
CN403	*1-560-280-00	CONNECTOR PIN 3P			
CN405	*1-560-286-00	CONNECTOR PIN 2P			
CNP301	*1-564-509-11	PLUG, CONNECTOR 6P			
CNP302	*1-564-505-11	PLUG, CONNECTOR 2P			
CNP303	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP304	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP306	*1-564-337-00	PIN, CONNECTOR 3P			
CNP307	*1-564-337-00	PIN, CONNECTOR 3P			
CNP308	*1-564-336-00	PIN, CONNECTOR 2P			
CNP309	*1-564-505-11	PLUG, CONNECTOR 2P			
CNP401	*1-564-507-11	PLUG, CONNECTOR 4P			
CNP402	*1-564-338-00	PIN, CONNECTOR 4P			
CNP403	*1-564-337-00	PIN, CONNECTOR 3P			
CNP404	*1-564-666-11	PIN, CONNECTOR 10P			
CNP405	*1-564-505-11	PLUG, CONNECTOR 2P			
CNP406	*1-564-505-11	PLUG, CONNECTOR 2P			
CNP407	*1-564-508-11	PLUG, CONNECTOR 5P			
CNP408	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP409	*1-564-507-11	PLUG, CONNECTOR 4P			
CNP410	*1-564-337-00	PIN, CONNECTOR 3P			
CNP411	*1-564-507-11	PLUG, CONNECTOR 4P			
CNP701	*1-564-516-11	PLUG, CONNECTOR 13P			
CNP702	*1-564-509-11	PLUG, CONNECTOR 6P			

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
CNP703	*1-564-508-11	PLUG, CONNECTOR 5P
CT101	1-141-225-00	CAP, TUNING, TRIMMER
CT201	1-141-225-00	CAP, TUNING, TRIMMER
D301	8-719-107-94	DIODE 1SS202-1
D302	8-719-107-94	DIODE 1SS202-1
D303	8-719-107-94	DIODE 1SS202-1
D304	8-719-107-94	DIODE 1SS202-1
D305	8-719-107-94	DIODE 1SS202-1
D306	8-719-107-94	DIODE 1SS202-1
D307	8-719-107-94	DIODE 1SS202-1
D308	8-719-107-94	DIODE 1SS202-1
D309	8-719-910-64	DIODE HZ6B1L
D310	8-719-910-11	DIODE HZ11A1L
D311	8-719-107-94	DIODE 1SS202-1
D312	8-719-107-94	DIODE 1SS202-1
D313	8-719-107-94	DIODE 1SS202-1
D314	8-719-107-94	DIODE 1SS202-1
D315	8-719-107-94	DIODE 1SS202-1
D401	8-719-107-94	DIODE 1SS202-1
D402	8-719-107-94	DIODE 1SS202-1
D403	8-719-107-94	DIODE 1SS202-1
D404	8-719-107-94	DIODE 1SS202-1
D405	8-719-107-94	DIODE 1SS202-1
D406	8-719-107-94	DIODE 1SS202-1
D407	8-719-107-94	DIODE 1SS202-1
D408	8-719-107-94	DIODE 1SS202-1
D409	8-719-107-94	DIODE 1SS202-1
D410	8-719-910-68	DIODE HZ6C2L
D411	8-719-910-92	DIODE HZ9A2L
D412	8-719-200-02	DIODE 10E-2
D413	8-719-107-94	DIODE 1SS202-1
D414	8-719-107-94	DIODE 1SS202-1
D415	8-719-107-94	DIODE 1SS202-1
D416	8-719-107-94	DIODE 1SS202-1
D417	8-719-107-94	DIODE 1SS202-1
D418	8-719-107-94	DIODE 1SS202-1
D419	8-719-107-94	DIODE 1SS202-1
D420	8-719-107-94	DIODE 1SS202-1
D421	8-719-107-94	DIODE 1SS202-1
D422	8-719-107-94	DIODE 1SS202-1
D423	8-719-107-94	DIODE 1SS202-1
D424	8-719-107-94	DIODE 1SS202-1
D425	8-719-107-94	DIODE 1SS202-1
D501	8-719-200-02	DIODE 10E-2
D502	8-719-200-02	DIODE 10E-2
D503	8-719-200-02	DIODE 10E-2
D504	8-719-200-02	DIODE 10E-2
D505	8-719-200-02	DIODE 10E-2
D506	8-719-200-02	DIODE 10E-2
D507	8-719-107-94	DIODE 1SS202-1
D508	8-719-200-02	DIODE 10E-2
D509	8-719-200-02	DIODE 10E-2
D510	8-719-200-02	DIODE 10E-2
D511	8-719-200-02	DIODE 10E-2
D512	8-719-200-02	DIODE 10E-2
D513	8-719-931-07	DIODE EQB01-07
D514	8-719-913-31	DIODE HZ33-1L
D515	8-719-910-83	DIODE HZ18-3L
D516	8-719-200-02	DIODE 10E-2
D601	8-719-107-94	DIODE 1SS202-1
D602	8-719-107-94	DIODE 1SS202-1
D603	8-719-107-94	DIODE 1SS202-1
D604	8-719-107-94	DIODE 1SS202-1
D605	8-719-107-94	DIODE 1SS202-1
D606	8-719-107-94	DIODE 1SS202-1
D607	8-719-107-94	DIODE 1SS202-1
D608	8-719-107-94	DIODE 1SS202-1
D609	8-719-107-94	DIODE 1SS202-1
D610	8-719-107-94	DIODE 1SS202-1
D611	8-719-107-94	DIODE 1SS202-1
D612	8-719-107-94	DIODE 1SS202-1
D613	8-719-107-94	DIODE 1SS202-1
D614	8-719-107-94	DIODE 1SS202-1
D615	8-719-107-94	DIODE 1SS202-1
D701	8-719-107-94	DIODE 1SS202-1
D702	8-719-919-19	DIODE GL8HY001
D703	8-719-919-17	DIODE GL8HD001
D704	8-719-919-18	DIODE GL8PG001
D705	8-719-919-18	DIODE GL8PG001
D706	8-719-919-18	DIODE GL8PG001
D707	8-719-919-18	DIODE GL8PG001
D708	8-719-915-52	DIODE GL-1PG102
D709	8-719-915-52	DIODE GL-1PG102
D710	8-719-915-52	DIODE GL-1PG102
F1	**⚠.1-532-259-00**	**(AEP,G-AEP,E)...FUSE, TIME-LAG 1.6A TIME LAG**
F1	**⚠.1-532-555-00**	**(Canadian)..FUSE, GLASS TUBE 1.6A NORMAL**
F2	**⚠.1-532-259-00**	**(AEP,G-AEP,E)...FUSE, TIME-LAG 1.6A TIME LAG**
F2	**⚠.1-532-555-00**	**(Canadian)..FUSE, GLASS TUBE 1.6A NORMAL**
F101	**⚠.1-532-078-00**	**(AEP,G-AEP)...FUSE, TIME-LAG 1.0A TIME LAG**
FLT601	1-519-330-11	INDICATOR TUBE, FLUORESCENT
IC301	8-759-600-02	IC M5218L
IC302	8-759-101-55	IC CX10032A
IC303	8-752-018-70	IC CX20187
IC401	8-755-641-31	IC CX564-131
IC402	8-759-600-54	IC M50783SP
IC403	8-759-602-14	IC M50761-412P
IC404	8-759-700-46	IC CX10034
IC405	8-759-800-76	IC LB1245
IC406	8-759-600-24	IC M54543L
IC407	8-759-962-08	IC BA6208
IC409	8-759-240-69	IC TC4069UBP
IC501	8-759-700-47	IC CX10035
IC601	8-759-906-02	IC BA6146
IC602	8-759-906-02	IC BA6146
IC603	8-759-905-48	IC MSL9512RS
J301	1-507-907-11	JACK, PIN 4P

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
L101	1-408-256-00	MICRO INDUCTOR 8.2MMH
L102	1-408-255-00	MICRO INDUCTOR 6.8MMH
L103	1-408-256-00	MICRO INDUCTOR 8.2MMH
L104	1-408-930-00	MICRO INDUCTOR 33MMH
L201	1-408-256-00	MICRO INDUCTOR 8.2MMH
L202	1-408-255-00	MICRO INDUCTOR 6.8MMH
L203	1-408-256-00	MICRO INDUCTOR 8.2MMH
L204	1-408-930-00	MICRO INDUCTOR 33MMH
L301	1-407-177-XX	MICRO INDUCTOR 470UH
L401	1-408-080-00	MICRO INDUCTOR 100UH
L402	1-408-080-00	MICRO INDUCTOR 100UH
LPF101	1-231-388-00	FILTER, LOW PASS
LPF201	1-231-388-00	FILTER, LOW PASS
M701	X-3595-413-1	PREPARATION (MAIN MOTOR), MOTOR
M702	X-3595-412-1	PREPARATION (REEL MOTOR), MOTOR
M703	X-3595-410-1	PREPARATION, MOTOR
M704	X-3323-406-1	MOTOR ASSY, D
Q101	8-729-606-33	TRANSISTOR 2SC2603-F
Q102	8-729-606-33	TRANSISTOR 2SC2603-F
Q103	8-729-102-03	TRANSISTOR 2SD1020
Q104	8-729-606-33	TRANSISTOR 2SC2603-F
Q105	8-729-606-33	TRANSISTOR 2SC2603-F
Q106	8-729-606-33	TRANSISTOR 2SC2603-F
Q107	8-729-606-33	TRANSISTOR 2SC2603-F
Q201	8-729-606-33	TRANSISTOR 2SC2603-F
Q202	8-729-606-33	TRANSISTOR 2SC2603-F
Q203	8-729-102-03	TRANSISTOR 2SD1020
Q204	8-729-606-33	TRANSISTOR 2SC2603-F
Q205	8-729-606-33	TRANSISTOR 2SC2603-F
Q206	8-729-606-33	TRANSISTOR 2SC2603-F
Q207	8-729-606-33	TRANSISTOR 2SC2603-F
Q301	8-729-900-61	TRANSISTOR DTA114ES
Q302	8-729-612-77	TRANSISTOR 2SA1027R
Q303	8-729-612-77	TRANSISTOR 2SA1027R
Q304	8-729-178-54	TRANSISTOR 2SC2785
Q305	8-729-178-54	TRANSISTOR 2SC2785
Q306	8-729-178-54	TRANSISTOR 2SC2785
Q307	8-729-612-77	TRANSISTOR 2SA1027R
Q308	8-729-606-33	TRANSISTOR 2SC2603-F
Q309	8-729-900-83	TRANSISTOR DTC124XS
Q310	8-729-900-83	TRANSISTOR DTC124XS
Q311	8-729-606-33	TRANSISTOR 2SC2603-F
Q313	8-729-900-83	TRANSISTOR DTC124XS
Q314	8-729-900-61	TRANSISTOR DTA114ES
Q315	8-729-900-83	TRANSISTOR DTC124XS
Q316	8-729-606-33	TRANSISTOR 2SC2603-F
Q317	8-729-201-78	TRANSISTOR 2SD1406
Q401	8-729-606-33	TRANSISTOR 2SC2603-F
Q402	8-729-900-61	TRANSISTOR DTA114ES
Q403	8-729-606-33	TRANSISTOR 2SC2603-F
Q404	8-729-900-61	TRANSISTOR DTA114ES
Q405	8-729-606-33	TRANSISTOR 2SC2603-F
Q406	8-729-900-61	TRANSISTOR DTA114ES

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q407	8-729-606-33	TRANSISTOR 2SC2603-F
Q408	8-729-900-61	TRANSISTOR DTA114ES
Q409	8-729-606-33	TRANSISTOR 2SC2603-F
Q410	8-729-900-61	TRANSISTOR DTA114ES
Q411	8-729-606-33	TRANSISTOR 2SC2603-F
Q412	8-729-900-61	TRANSISTOR DTA114ES
Q413	8-729-606-33	TRANSISTOR 2SC2603-F
Q414	8-729-900-61	TRANSISTOR DTA114ES
Q415	8-729-606-33	TRANSISTOR 2SC2603-F
Q416	8-729-900-61	TRANSISTOR DTA114ES
Q417	8-729-900-63	TRANSISTOR DTA124ES
Q418	8-729-102-03	TRANSISTOR 2SD1020
Q419	8-729-195-23	TRANSISTOR 2SA952
Q420	8-729-195-23	TRANSISTOR 2SA952
Q421	8-729-102-03	TRANSISTOR 2SD1020
Q422	8-729-900-63	TRANSISTOR DTA124ES
Q423	8-729-177-43	TRANSISTOR 2SD774
Q424	8-729-900-36	TRANSISTOR DTC124ES
Q425	8-729-180-93	TRANSISTOR 2SD809
Q426	8-729-180-93	TRANSISTOR 2SD809
Q427	8-729-195-23	TRANSISTOR 2SA952
Q428	8-729-606-33	TRANSISTOR 2SC2603-F
Q429	8-729-900-63	TRANSISTOR DTA124ES
Q430	8-729-900-63	TRANSISTOR DTA124ES
Q431	8-729-900-63	TRANSISTOR DTA124ES
Q432	8-729-900-63	TRANSISTOR DTA124ES
Q433	8-729-900-63	TRANSISTOR DTA124ES
Q434	8-729-900-63	TRANSISTOR DTA124ES
Q435	8-729-900-36	TRANSISTOR DTC124ES
Q436	8-729-900-63	TRANSISTOR DTA124ES
Q437	8-729-900-63	TRANSISTOR DTA124ES
Q438	8-729-900-63	TRANSISTOR DTA124ES
Q439	8-729-900-63	TRANSISTOR DTA124ES
Q440	8-729-900-63	TRANSISTOR DTA124ES
Q441	8-729-606-33	TRANSISTOR 2SC2603-F
Q442	8-729-606-33	TRANSISTOR 2SC2603-F
Q443	8-729-900-61	TRANSISTOR DTA114ES
Q444	8-729-900-61	TRANSISTOR DTA114ES
Q445	8-729-606-33	TRANSISTOR 2SC2603-F
Q446	8-729-900-63	TRANSISTOR DTA124ES
Q447	8-729-606-33	TRANSISTOR 2SC2603-F
Q448	8-729-606-33	TRANSISTOR 2SC2603-F
Q449	8-729-900-63	TRANSISTOR DTA124ES
Q450	8-729-900-63	TRANSISTOR DTA124ES
Q451	8-729-900-63	TRANSISTOR DTA124ES
Q452	8-729-900-63	TRANSISTOR DTA124ES
Q453	8-729-900-63	TRANSISTOR DTA124ES
Q454	8-729-900-63	TRANSISTOR DTA124ES
Q455	8-729-195-23	TRANSISTOR 2SA952
Q456	8-729-606-33	TRANSISTOR 2SC2603-F
Q457	8-729-606-33	TRANSISTOR 2SC2603-F
Q458	8-729-900-36	TRANSISTOR DTC124ES
Q459	8-729-606-33	TRANSISTOR 2SC2603-F
Q460	8-729-900-36	TRANSISTOR DTC124ES
Q501	8-729-180-93	TRANSISTOR 2SD809
Q502	8-729-154-82	TRANSISTOR 2SB548-R
Q503	8-729-201-78	TRANSISTOR 2SD1406

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q504	8-729-201-78	TRANSISTOR 2SD1406			
Q505	8-729-900-36	TRANSISTOR DTC124ES			
Q506	8-729-606-33	TRANSISTOR 2SC2603-F			
Q507	8-729-177-43	TRANSISTOR 2SD774			
Q508	8-729-900-63	TRANSISTOR DTA124ES			
Q509	8-729-177-43	TRANSISTOR 2SD774			
R101	1-214-765-00	METAL	33K	1%	1/4W
R102	1-214-773-00	METAL	68K	1%	1/4W
R103	1-214-705-00	METAL	100	1%	1/4W
R104	1-246-524-00	CARBON	130K	5%	1/4W
R105	1-214-747-00	METAL	5.6K	1%	1/4W
R106	1-247-107-00	CARBON	100	5%	1/4W
R107	1-247-143-00	CARBON	3.3K	5%	1/4W
R108	1-247-152-00	CARBON	7.5K	5%	1/4W
R109	1-246-529-00	CARBON	220K	5%	1/4W
R110	1-247-831-00	CARBON	1K	5%	1/6W
R111	1-247-155-00	CARBON	10K	5%	1/4W
R112	1-247-131-00	CARBON	1K	5%	1/4W
R113	1-247-162-00	CARBON	20K	5%	1/4W
R114	1-214-737-00	METAL	2.2K	1%	1/4W
R115	1-247-139-00	CARBON	2.2K	5%	1/4W
R116	1-247-131-00	CARBON	1K	5%	1/4W
R117	1-247-179-00	CARBON	100K	5%	1/4W
R118	1-247-143-00	CARBON	3.3K	5%	1/4W
R119	1-247-151-00	CARBON	6.8K	5%	1/4W
R120	1-247-131-00	CARBON	1K	5%	1/4W
R121	1-247-148-00	CARBON	5.1K	5%	1/4W
R122	1-247-141-00	CARBON	2.7K	5%	1/4W
R123	1-247-122-00	CARBON	430	5%	1/4W
R124	1-247-851-00	CARBON	6.8K	5%	1/6W
R125	1-247-155-00	CARBON	10K	5%	1/4W
R126	1-247-147-00	CARBON	4.7K	5%	1/4W
R127	1-247-151-00	CARBON	6.8K	5%	1/4W
R128	1-247-155-00	CARBON	10K	5%	1/4W
R129	1-247-131-00	CARBON	1K	5%	1/4W
R130	1-247-179-00	CARBON	100K	5%	1/4W
R131	1-247-159-00	CARBON	15K	5%	1/4W
R132	1-247-139-00	CARBON	2.2K	5%	1/4W
R133	1-247-117-00	CARBON	270	5%	1/4W
R134	1-247-157-00	CARBON	12K	5%	1/4W
R135	1-247-847-00	CARBON	4.7K	5%	1/6W
R136	1-247-849-00	CARBON	5.6K	5%	1/6W
R137	1-247-840-00	CARBON	2.4K	5%	1/6W
R138	1-247-847-00	CARBON	4.7K	5%	1/6W
R139	1-247-159-00	CARBON	15K	5%	1/4W
R140	1-247-159-00	CARBON	15K	5%	1/4W
R141	1-247-159-00	CARBON	15K	5%	1/4W
R142	1-247-155-00	CARBON	10K	5%	1/4W
R143	1-247-167-00	CARBON	33K	5%	1/4W
R144	1-247-179-00	CARBON	100K	5%	1/4W
R145	1-247-175-00	CARBON	68K	5%	1/4W
R146	1-247-155-00	CARBON	10K	5%	1/4W
R147	1-247-139-00	CARBON	2.2K	5%	1/4W
R148	1-247-179-00	CARBON	100K	5%	1/4W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R149	1-247-828-00	CARBON	750	5%	1/6W
R201	1-214-765-00	METAL	33K	1%	1/4W
R202	1-214-773-00	METAL	68K	1%	1/4W
R203	1-214-705-00	METAL	100	1%	1/4W
R204	1-246-524-00	CARBON	130K	5%	1/4W
R205	1-214-747-00	METAL	5.6K	1%	1/4W
R206	1-247-107-00	CARBON	100	5%	1/4W
R207	1-247-143-00	CARBON	3.3K	5%	1/4W
R208	1-247-152-00	CARBON	7.5K	5%	1/4W
R209	1-246-529-00	CARBON	220K	5%	1/4W
R210	1-247-831-00	CARBON	1K	5%	1/6W
R211	1-247-155-00	CARBON	10K	5%	1/4W
R212	1-247-131-00	CARBON	1K	5%	1/4W
R213	1-247-162-00	CARBON	20K	5%	1/4W
R214	1-214-737-00	METAL	2.2K	1%	1/4W
R215	1-247-139-00	CARBON	2.2K	5%	1/4W
R217	1-247-179-00	CARBON	100K	5%	1/4W
R218	1-247-143-00	CARBON	3.3K	5%	1/4W
R219	1-247-151-00	CARBON	6.8K	5%	1/4W
R221	1-247-148-00	CARBON	5.1K	5%	1/4W
R222	1-247-141-00	CARBON	2.7K	5%	1/4W
R223	1-247-122-00	CARBON	430	5%	1/4W
R224	1-247-851-00	CARBON	6.8K	5%	1/6W
R225	1-247-155-00	CARBON	10K	5%	1/4W
R226	1-247-147-00	CARBON	4.7K	5%	1/4W
R227	1-247-151-00	CARBON	6.8K	5%	1/4W
R228	1-247-155-00	CARBON	10K	5%	1/4W
R229	1-247-131-00	CARBON	1K	5%	1/4W
R230	1-247-179-00	CARBON	100K	5%	1/4W
R231	1-247-159-00	CARBON	15K	5%	1/4W
R232	1-247-139-00	CARBON	2.2K	5%	1/4W
R233	1-247-117-00	CARBON	270	5%	1/4W
R234	1-247-157-00	CARBON	12K	5%	1/4W
R235	1-247-847-00	CARBON	4.7K	5%	1/6W
R236	1-247-849-00	CARBON	5.6K	5%	1/6W
R237	1-247-840-00	CARBON	2.4K	5%	1/6W
R238	1-247-847-00	CARBON	4.7K	5%	1/6W
R239	1-247-159-00	CARBON	15K	5%	1/4W
R240	1-247-159-00	CARBON	15K	5%	1/4W
R241	1-247-159-00	CARBON	15K	5%	1/4W
R242	1-247-155-00	CARBON	10K	5%	1/4W
R243	1-247-167-00	CARBON	33K	5%	1/4W
R244	1-247-179-00	CARBON	100K	5%	1/4W
R245	1-247-175-00	CARBON	68K	5%	1/4W
R246	1-247-155-00	CARBON	10K	5%	1/4W
R247	1-247-139-00	CARBON	2.2K	5%	1/4W
R248	1-247-179-00	CARBON	100K	5%	1/4W
R249	1-247-828-00	CARBON	750	5%	1/6W
R301	1-244-849-00	CARBON	100	5%	1/2W
R302	1-244-849-00	CARBON	100	5%	1/2W
R305	1-247-871-00	CARBON	47K	5%	1/6W
R306	1-247-859-00	CARBON	15K	5%	1/6W
R307	1-247-115-00	CARBON	220	5%	1/4W
R308	1-247-115-00	CARBON	220	5%	1/4W
R310	1-214-777-00	METAL	100K	1%	1/4W
R311	1-247-179-00	CARBON	100K	5%	1/4W
R312	1-247-155-00	CARBON	10K	5%	1/4W

ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R313	1-247-151-00	CARBON	6.8K	5%	1/4W	
R314	1-247-143-00	CARBON	3.3K	5%	1/4W	
R315	1-247-121-00	CARBON	390	5%	1/4W	
R316	1-247-863-00	CARBON	22K	5%	1/6W	
R317	1-247-859-00	CARBON	15K	5%	1/6W	
R318	1-247-859-00	CARBON	15K	5%	1/6W	
R319	1-247-089-00	CARBON	18	5%	1/4W	
R320	1-247-855-00	CARBON	10K	5%	1/6W	
R321	1-247-871-00	CARBON	47K	5%	1/6W	
R322	1-247-853-00	CARBON	8.2K	5%	1/6W	
R323	1-247-855-00	CARBON	10K	5%	1/6W	
R324	1-247-847-00	CARBON	4.7K	5%	1/6W	
R325	1-247-171-00	CARBON	47K	5%	1/4W	
R326	1-247-171-00	CARBON	47K	5%	1/4W	
R327	1-247-855-00	CARBON	10K	5%	1/6W	
R328	1-247-847-00	CARBON	4.7K	5%	1/6W	
R329	1-247-831-00	CARBON	1K	5%	1/6W	
R335	1-247-847-00	CARBON	4.7K	5%	1/6W	
R336	1-247-871-00	CARBON	47K	5%	1/6W	
R337	1-247-859-00	CARBON	15K	5%	1/6W	
R338	1-247-871-00	CARBON	47K	5%	1/6W	
R339	1-247-871-00	CARBON	47K	5%	1/6W	
R345	1-247-847-00	CARBON	4.7K	5%	1/6W	
R346	1-247-831-00	CARBON	1K	5%	1/6W	
R347	1-247-879-00	CARBON	100K	5%	1/6W	
R348	1-247-871-00	CARBON	47K	5%	1/6W	
R349	1-247-147-00	CARBON	4.7K	5%	1/4W	
R401	1-247-847-00	CARBON	4.7K	5%	1/6W	
R402	1-247-847-00	CARBON	4.7K	5%	1/6W	
R403	1-247-847-00	CARBON	4.7K	5%	1/6W	
R404	1-247-847-00	CARBON	4.7K	5%	1/6W	
R405	1-247-847-00	CARBON	4.7K	5%	1/6W	
R406	1-247-847-00	CARBON	4.7K	5%	1/6W	
R407	1-247-847-00	CARBON	4.7K	5%	1/6W	
R408	1-247-847-00	CARBON	4.7K	5%	1/6W	
R409	1-247-847-00	CARBON	4.7K	5%	1/6W	
R410	1-247-155-00	CARBON	10K	5%	1/4W	
R411	1-247-131-00	CARBON	1K	5%	1/4W	
R412	1-247-155-00	CARBON	10K	5%	1/4W	
R413	1-247-155-00	CARBON	10K	5%	1/4W	
R414	1-247-131-00	CARBON	1K	5%	1/4W	
R415	1-247-131-00	CARBON	1K	5%	1/4W	
R416	1-247-155-00	CARBON	10K	5%	1/4W	
R417	1-247-131-00	CARBON	1K	5%	1/4W	
R418	1-247-147-00	CARBON	4.7K	5%	1/4W	
R419	1-247-143-00	CARBON	3.3K	5%	1/4W	
R420 ⚠.	1-206-481-00	METAL OXIDE	56	5%	2W	F
R421	1-247-127-00	CARBON	680	5%	1/4W	
R422	1-247-143-00	CARBON	3.3K	5%	1/4W	
R423	1-247-847-00	CARBON	4.7K	5%	1/6W	
R424	1-247-847-00	CARBON	4.7K	5%	1/6W	
R425	1-247-847-00	CARBON	4.7K	5%	1/6W	
R426	1-247-115-00	CARBON	220	5%	1/4W	
R427	1-247-115-00	CARBON	220	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R428	1-247-171-00	CARBON	47K	5%	1/4W
R429	1-247-171-00	CARBON	47K	5%	1/4W
R432	1-246-412-00	CARBON	3	5%	1/4W
R433	1-247-131-00	CARBON	1K	5%	1/4W
R434	1-247-147-00	CARBON	4.7K	5%	1/4W
R435	1-247-121-00	CARBON	390	5%	1/4W
R436	1-247-147-00	CARBON	4.7K	5%	1/4W
R437	1-247-167-00	CARBON	33K	5%	1/4W
R438	1-247-168-00	CARBON	36K	5%	1/4W
R439	1-247-147-00	CARBON	4.7K	5%	1/4W
R440	1-247-113-00	CARBON	180	5%	1/4W
R441	1-247-855-00	CARBON	10K	5%	1/6W
R442	1-247-855-00	CARBON	10K	5%	1/6W
R443	1-247-855-00	CARBON	10K	5%	1/6W
R444	1-247-855-00	CARBON	10K	5%	1/6W
R445	1-247-155-00	CARBON	10K	5%	1/4W
R446	1-247-155-00	CARBON	10K	5%	1/4W
R447	1-247-143-00	CARBON	3.3K	5%	1/4W
R448	1-247-143-00	CARBON	3.3K	5%	1/4W
R449	1-247-177-00	CARBON	82K	5%	1/4W
R450	1-247-107-00	CARBON	100	5%	1/4W
R451	1-247-107-00	CARBON	100	5%	1/4W
R452	1-247-107-00	CARBON	100	5%	1/4W
R453	1-246-545-00	CARBON	1M	5%	1/4W
R454	1-247-141-00	CARBON	2.7K	5%	1/4W
R455	1-247-147-00	CARBON	4.7K	5%	1/4W
R456	1-247-157-00	CARBON	12K	5%	1/4W
R457	1-247-161-00	CARBON	18K	5%	1/4W
R458	1-247-155-00	CARBON	10K	5%	1/4W
R459	1-247-155-00	CARBON	10K	5%	1/4W
R460	1-247-107-00	CARBON	100	5%	1/4W
R461	1-247-083-00	CARBON	10	5%	1/4W
R462	1-247-847-00	CARBON	4.7K	5%	1/6W
R463	1-247-847-00	CARBON	4.7K	5%	1/6W
R464	1-247-855-00	CARBON	10K	5%	1/6W
R465	1-247-855-00	CARBON	10K	5%	1/6W
R466	1-247-855-00	CARBON	10K	5%	1/6W
R467	1-247-855-00	CARBON	10K	5%	1/6W
R468	1-247-855-00	CARBON	10K	5%	1/6W
R469	1-247-855-00	CARBON	10K	5%	1/6W
R470	1-247-855-00	CARBON	10K	5%	1/6W
R471	1-247-855-00	CARBON	10K	5%	1/6W
R472	1-247-855-00	CARBON	10K	5%	1/6W
R473	1-247-855-00	CARBON	10K	5%	1/6W
R474	1-247-863-00	CARBON	22K	5%	1/6W
R475	1-247-155-00	CARBON	10K	5%	1/4W
R476	1-247-855-00	CARBON	10K	5%	1/6W
R477	1-247-855-00	CARBON	10K	5%	1/6W
R478	1-247-115-00	CARBON	220	5%	1/4W
R479	1-247-851-00	CARBON	6.8K	5%	1/6W
R480	1-247-847-00	CARBON	4.7K	5%	1/6W
R483	1-247-171-00	CARBON	47K	5%	1/4W
R484	1-247-171-00	CARBON	47K	5%	1/4W
R485	1-247-171-00	CARBON	47K	5%	1/4W
R486	1-247-855-00	CARBON	10K	5%	1/6W
R487	1-247-815-00	CARBON	220	5%	1/6W
R501	1-247-140-00	CARBON	2.4K	5%	1/4W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R502	1-247-158-00	CARBON	13K	5%	1/4W
R503	1-247-156-00	CARBON	11K	5%	1/4W
R504	1-247-137-00	CARBON	1.8K	5%	1/4W
R505	1-247-147-00	CARBON	4.7K	5%	1/4W
R506	1-247-126-00	CARBON	620	5%	1/4W
R507	1-247-138-00	CARBON	2K	5%	1/4W
R508	1-247-126-00	CARBON	620	5%	1/4W
R510	1-247-163-00	CARBON	22K	5%	1/4W
R511	1-247-115-00	CARBON	220	5%	1/4W
R512	1-247-141-00	CARBON	2.7K	5%	1/4W
R513	1-247-135-00	CARBON	1.5K	5%	1/4W
R601	1-247-855-00	CARBON	10K	5%	1/6W
R602	1-247-863-00	CARBON	22K	5%	1/6W
R603	1-247-863-00	CARBON	22K	5%	1/6W
R604	1-247-855-00	CARBON	10K	5%	1/6W
R605	1-247-855-00	CARBON	10K	5%	1/6W
R701	1-247-115-00	CARBON	220	5%	1/4W
R702	1-247-119-00	CARBON	330	5%	1/4W
R703	1-247-107-00	CARBON	100	5%	1/4W
R704	1-247-107-00	CARBON	100	5%	1/4W
R705	1-247-107-00	CARBON	100	5%	1/4W
R706	1-247-107-00	CARBON	100	5%	1/4W
R707	1-247-123-00	CARBON	470	5%	1/4W
R708	1-247-124-00	CARBON	510	5%	1/4W
R709	1-247-125-00	CARBON	560	5%	1/4W
RV101	1-230-314-00	RES, VAR, SLIDE 20K/20K(REC LEVEL/L)			
RV102	1-226-233-00	RES, ADJ, CARBON 1K			
RV103	1-226-236-00	RES, ADJ, CARBON 10K			
RV104	1-226-236-00	RES, ADJ, CARBON 10K			
RV201	1-230-314-00	RES, VAR, SLIDE 20K/20K(REC LEVEL/R)			
RV202	1-226-233-00	RES, ADJ, CARBON 1K			
RV203	1-226-236-00	RES, ADJ, CARBON 10K			
RV204	1-226-236-00	RES, ADJ, CARBON 10K			
RV401	1-226-235-00	RES, ADJ, CARBON 5K			
RY301	1-515-473-00	RELAY			
S401	1-553-751-00	SWITCH, SLIDE (TIMER)			
S601	1-554-303-00	SWITCH, KEY BOARD (STOP)			
S602	1-554-303-00	SWITCH, KEY BOARD (REC MUTE)			
S603	1-554-303-00	SWITCH, KEY BOARD (PER)			
S604	1-554-303-00	SWITCH, KEY BOARD (DIRECTION MODE)			
S605	1-554-303-00	SWITCH, KEY BOARD (REW)			
S606	1-554-303-00	SWITCH, KEY BOARD (PAUSE)			
S607	1-554-303-00	SWITCH, KEY BOARD (RESET)			
S608	1-554-303-00	SWITCH, KEY BOARD (MUSIC SCAN)			
S609	1-554-303-00	SWITCH, KEY BOARD (FF)			
S610	1-554-303-00	SWITCH, KEY BOARD (REC)			
S611	1-554-303-00	SWITCH, KEY BOARD (MEMORY)			
S612	1-554-303-00	SWITCH, KEY BOARD (AMS)			
S613	1-554-303-00	SWITCH, KEY BOARD (FWD)			
S614	1-554-303-00	SWITCH, KEY BOARD (REV)			
S615	1-554-303-00	SWITCH, KEY BOARD (BLANK SKIP)			
S701	1-554-303-00	SWITCH, KEY BOARD (OPEN/CLOSE)			
S702	1-570-060-11	SWITCH, SLIDE (HALF DET)			
S707	1-554-168-00	SWITCH, SLIDE (DOLBY NR)			
S1000⚠	1-553-318-00	SWITCH, PUSH (AC POWER)(1 KEY)			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
SPK101	1-235-186-00	ENCAPSULATED COMPONENT
SPK201	1-235-186-00	ENCAPSULATED COMPONENT
T301	1-433-291-11	TRANSFORMER, BIAS OSCILLATION
T1000⚠	1-448-062-11	(Canadian)....TRANSFORMER, POWER
T1000⚠	1-448-063-11	(AEP,G-AEP)...TRANSFORMER, POWER
T1000⚠	1-448-064-11	(E)...........TRANSFORMER, POWER
TH401	1-800-194-11	THERMISTORCDIRECT-HEATING DISK
TH402	1-800-194-11	THERMISTORCDIRECT-HEATING DISK
⚠VS1000	1-526-576-51	(E)...SELECTOR, POWER VOLTAGE
X401	1-567-160-00	OSCILLATOR, CERAMIC
X402	1-527-532-00	OSCILLATOR, CERAMIC

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-556-372-41	CORD, CONNECTION (4 CORE)
1-557-654-21	CORD, CONNECTION
3-312-970-00	SHEET, PROTECTION
3-323-468-01	CUSHION, ASSIST
3-323-470-01	SCREW (B3X6), (+ -)
3-323-479-01	(E)...INDIVIDUAL CARTON
3-323-479-11	(Canadian,AEP,G-AEP)...INDIVIDUAL CARTON
3-701-630-00	BAG, POLYETHYLENE
3-760-102-11	(Canadian,AEP,E)...MANUAL, INSTRUCTION
3-760-102-41	(AEP,G-AEP)........MANUAL, INSTRUCTION
*4-302-759-00	LABEL, SERIAL NUMBER
4-906-019-01	CUSHION (LEFT), LOWER
4-906-020-01	CUSHION (RIGHT), LOWER
4-906-021-01	CUSHION (LEFT), UPPER
4-906-022-01	CUSHION (RIGHT), UPPER

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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Sony Corporation